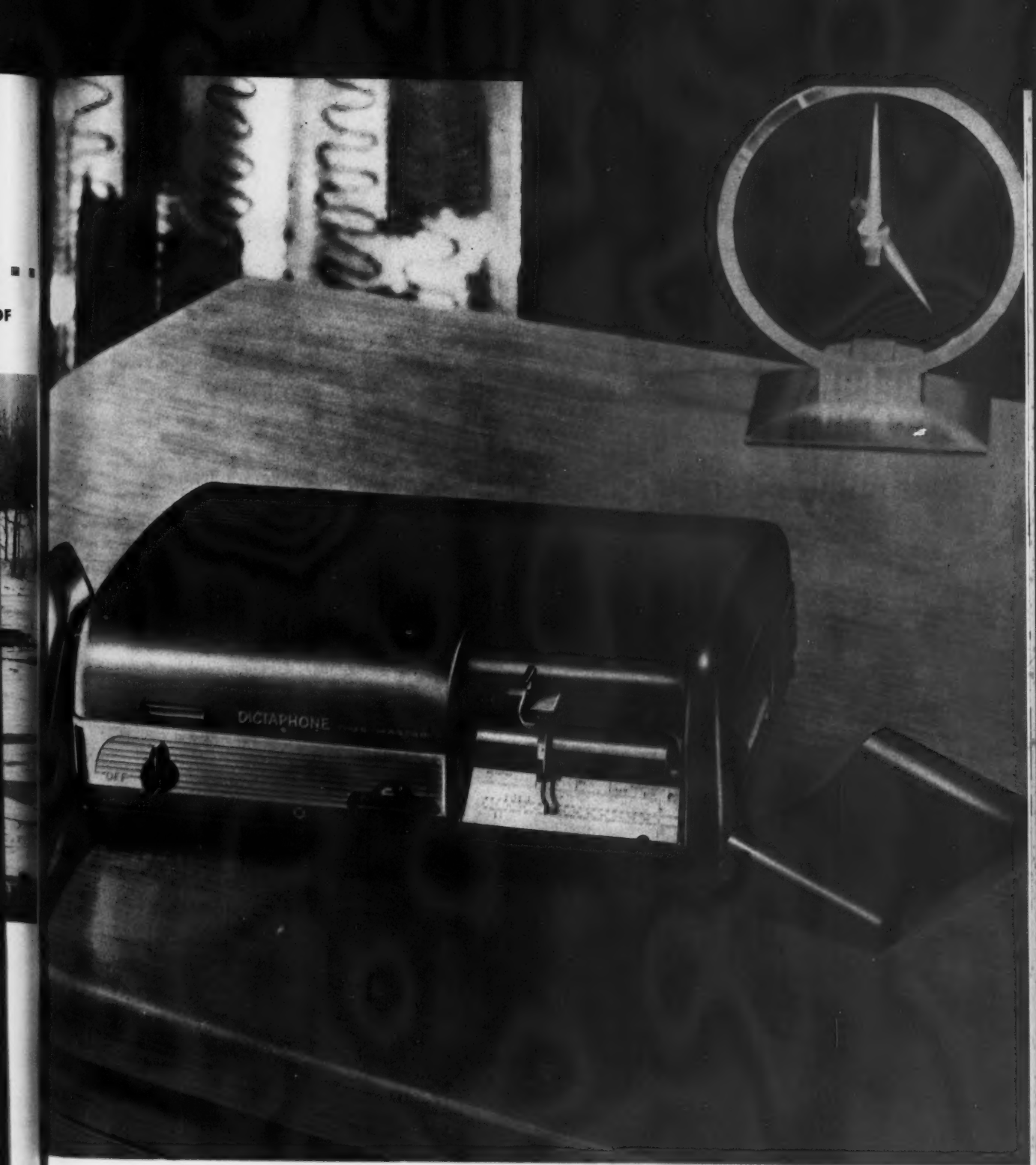
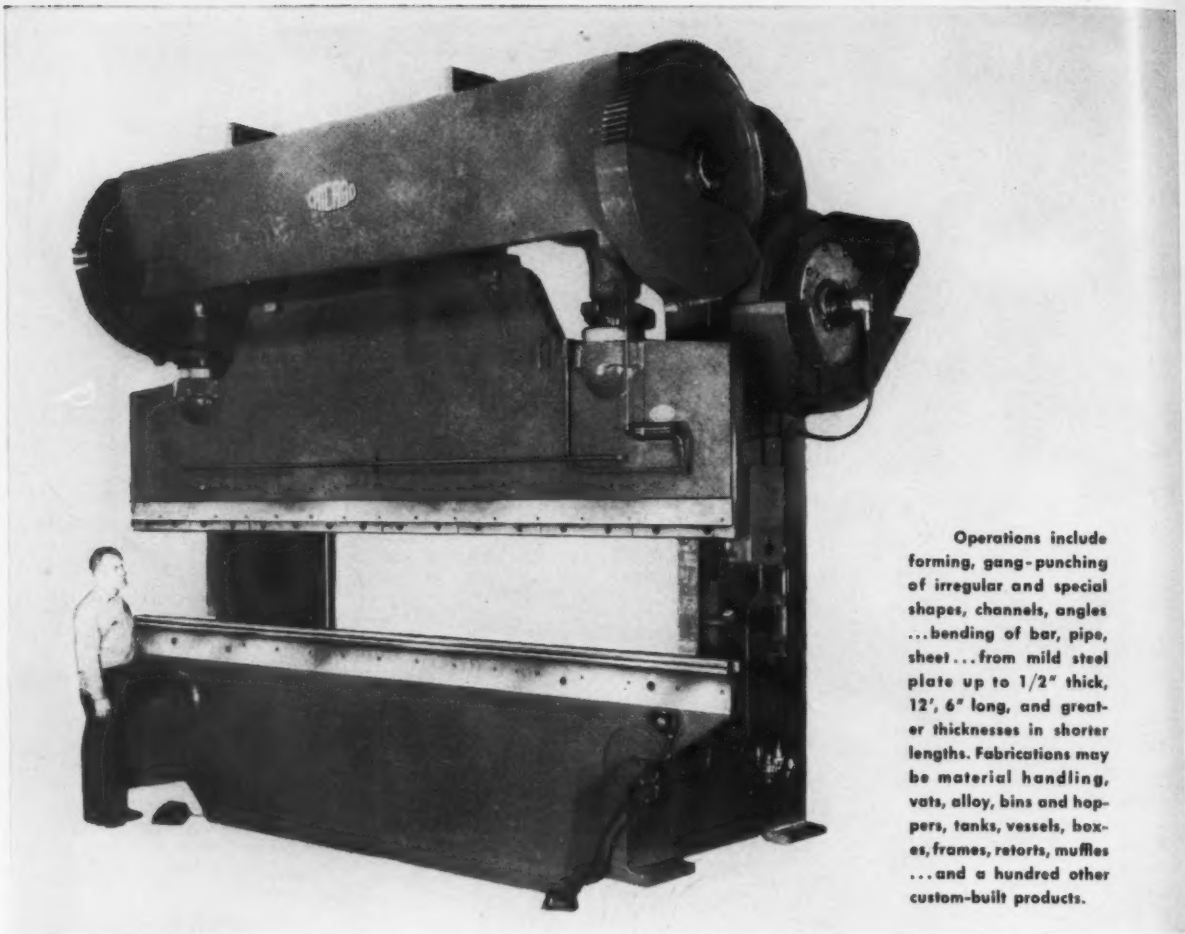


Connecticut INDUSTRY

JUNE 1954



Operations include forming, gang-punching of irregular and special shapes, channels, angles ...bending of bar, pipe, sheet ...from mild steel plate up to 1/2" thick, 12', 6" long, and greater thicknesses in shorter lengths. Fabrications may be material handling, vats, alloy, bins and hoppers, tanks, vessels, boxes, frames, retorts, muffles ...and a hundred other custom-built products.

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I shall be working with highly experienced engineers, fabricators and welders, who have made Rolock a top name for supplying engineered-to-the-job Heat Treating equipment for the country's leading metal working plants.

So, as the most versatile tool in any fabricating plant, Rolock is offering my products for the solution of your problems concerning fabrication (see above) you may require. Mr. Roger P. Welles, President of Rolock Incorporated, has suggested that you write to him, personally, for discussion of your needs . . . and, if desired, our engineering recommendations.

ROLOCK INCORPORATED
1322 Kings Highway
Fairfield, Connecticut

5RL54AR

Connecticut INDUSTRY

MANUFACTURERS' ASSOCIATION OF CONNECTICUT, INC.

VOL. 32 - NO. 6 - JUNE, 1954

L. M. BINGHAM, *Editor*

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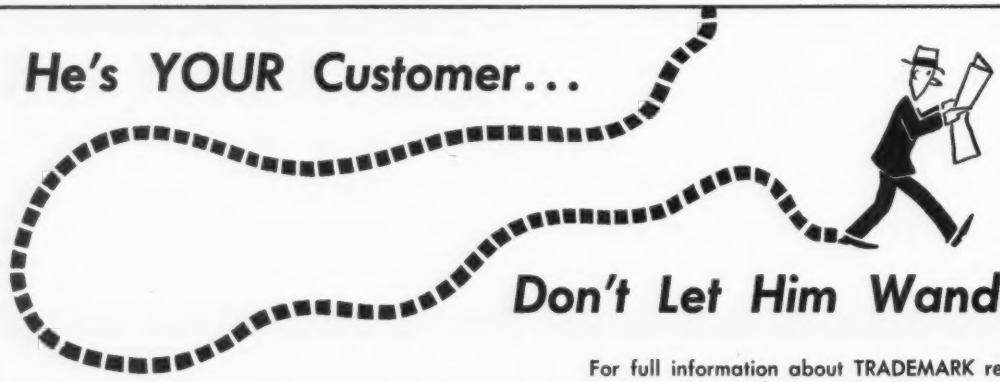

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For full information about TRADEMARK representation in any telephone directory in any area of the state or nation — wherever your dealers are located — just ask your local telephone business office to have a Trademark Representative get in touch with you.

9 OUT OF 10 PEOPLE USE THE YELLOW PAGES AS A BUYING GUIDE

THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY
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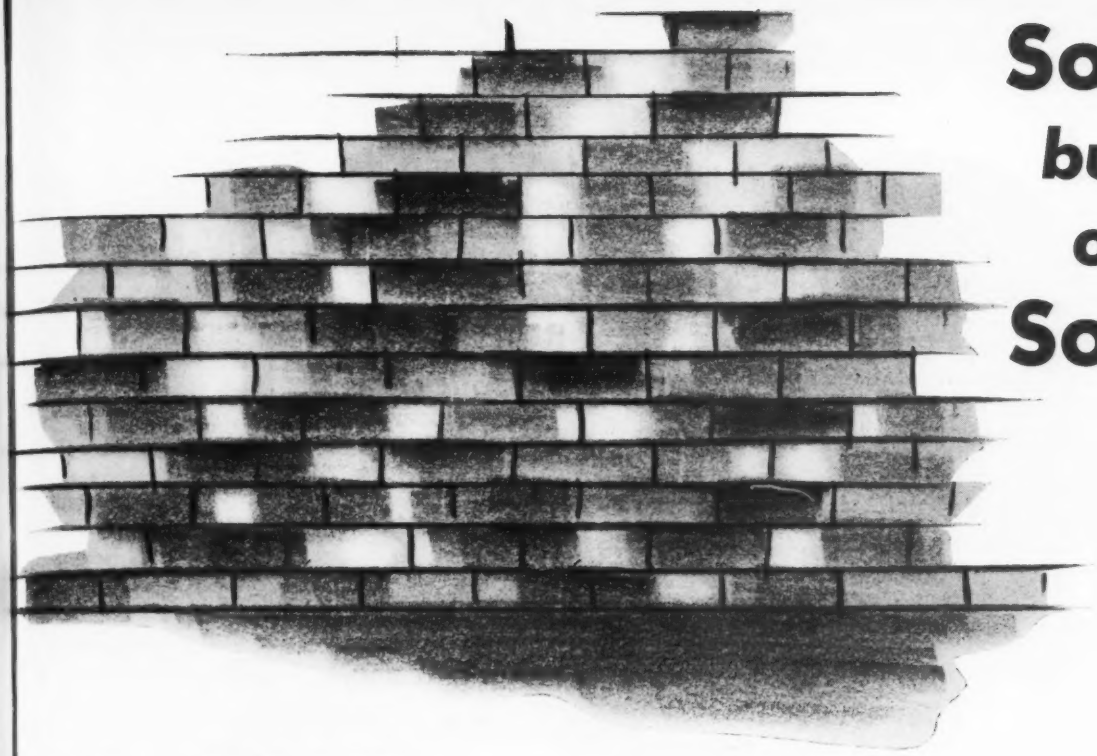

Solid *built on* Solid

It's SOLID

They've been with Kellogg and Bulkeley a total of 47 years, Bill Peck since 1933 and Reynolds Meade five years before that. Their background was solid before they came to K & B; their training prior to going on the road selling has resulted in solid built on solid.

BILL PECK'S background qualifies him to handle practically all types of lithographic printing requirements with equal ease, although he has been called upon to specialize to a great extent in the selling of bank checks, check books, and other printed material so necessary to the banking field.

One of Bill's most valuable assets is the experience gained at the outset of his career when he served in the capacity of purchasing agent for Kellogg & Bulkeley. This phase of his cumulative training affords him the opportunity of approaching a problem from the point of view of the buyer as well as the seller of printing. Such an advantage establishes a firm basis for the exchange of ideas to your benefit and satisfaction.

REYNOLDS MEADE is also well qualified to handle your orders in the way that will best serve your interests. He too has had considerable experience as purchasing agent for Kellogg & Bulkeley, and in addition has spent twelve of his twenty-six years with the company preparing estimates for customers who wish to know in advance how much a given printing job will cost. As estimating requires knowing a great deal about the various processes involved in producing a printed piece and about the comparative costs of those processes, Mr. Meade has in these years acquired the basic knowledge to give your lithographic jobs the excellent handling you want them to have.

BILL PECK

REYNOLDS MEADE

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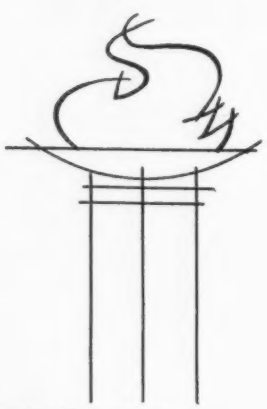

Serving Connecticut and Western Massachusetts since 1925

For the 1952 Olympic Games, fire was flown from Greece to Denmark, then ferried to the Finnish border and relayed up to Helsinki — to light the historic Torch of the Olympiad.

T. A. D. JONES' truck-drivers have, in their way, been "carrying the torch" to industry in southern New England ever since 1925. — Year in, year out, day and night, in fair and foul weather, across rivers and harbors, up and down hills and dales — they have been delivering their vital cargos of Bunker "C" fuel oil, bituminous and anthracite coal — from one of the largest bulk storage plants in New England.

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More About Economic Understanding

By W. C. BEEKLEY, *President**
The Whitlock Manufacturing Company, West Hartford

THE subject about which Mr. Sherman R. Knapp wrote in the May issue is so important that it is worth wide attention. It is tremendously complicated and the solution is difficult. To each of us it presents a different aspect, depending upon the circumstances under which we have worked. As with a kaleidoscope, the pieces are always the same but with each turn we see a different pattern.

I liked Mr. Knapp's use of the word "understanding." This is perhaps *the* most important in this connection. If we can secure general understanding of the real values involved, we will have solved not only the problem of effective "economic education" but also laid a sound foundation for the continuance of a truly free economy and society.

The basic difficulty, it seems to me, is that understanding is something which cannot be "taught" in the ordinary sense. It must be achieved, by each of us, by our own *thinking:* which means that thinking is the most important job for all of us.

Certainly we should use "text books on economics" and should continue our efforts along the lines of "economic education." These will help but I think we must realize that their effectiveness is sharply limited. They consist of the conclusions which have been reached by profound students of the problem, who have "thought" back and back to fundamentals, refusing to be satisfied with clichés, half-truths and "easy" conclusions. The conclusions which they teach "take a grip" on the consciousness of the reader and become part of his thinking only when he arrives at them by much the same process which the speaker or writer has followed.

This statement makes effective "economic education" sound like a long and difficult process—and I believe that it is. Hence, it is particularly important that we "start right" —that our target is clear and precise and that the mechanism, by means of which we propose to reach the target, be carefully and *understandingly* calculated to achieve the desired end.

The point which I am trying to make is difficult to express but I feel that it is fundamental to the whole matter.

If we were living in a society entirely without law and in an economy completely without controls, the *economic* criteria by which each of us could judge the "rightness or wrongness" of our conduct consistent with the simultaneous preservation of our individual liberties, would be relatively simple. Obviously, however, we are far from being in that situation.

By the "consent of the governed" we have agreed to live and work in a society and economy over which our "government" exercises "controls" over wide areas. Thus, the problems which we face are bewilderingly complex, involved with apparent truths which are actually fallacies made further complicated by uncertainties, and laced through and through by emotionally inspired connotations.

With regard to these problems, each of us, by our daily thoughts, words and acts, by the use of our franchises and "quality" of our living and working, helps to determine the direction of development of our society and economy and whether they develop in the direction of the greatest good for the greatest number. It is therefore, I think, important that each of us determine and accept relatively simple, basic principles by which we may test the rightness or wrongness of conflicting thoughts and of the words and actions which make up the pattern of our communication, living and working with others.

It is my belief that such criteria exist and that they can be expressed briefly.

The first principle (with regard to "living") is expressed in the opening words of our Declaration of Independence—an unqualified assertion of the inviolability of individual liberty. In each individual resides complete "authority" for the conduct of his or her life. He or she may "consent" to delegate this authority—it must not and cannot be "taken."

The second principle is the "responsibility" which must be associated with this authority, if we are to maintain a "fair" and decent society. Each individual must accept and believe in this.

The third principle is the belief in a "competitive" economy—as the only method of "working" that is consistent with a "free" society.

Much of the current failure of "understanding," particularly with regard to economic matters, has resulted from careless semantics. I respectfully submit that the use of such terms as "capitalistic economy," and many similar phrases, not only fails to be completely descriptive, but actually serves to confuse rather than to clarify the pertinent issues. To my mind the word "competitive" expresses the essence of the basic principle.

Any effort towards sound development of our society and economy must recognize the importance of the *integrity* of the individual. He *must* do his own thinking and arrive, by means of his own *convictions*, at his basic *beliefs*. Only in that manner can we achieve a really safe and sound society and economy.

I realize that in the preceding statements I have left wide and important areas uncovered—possibly to the point of obscurity. It is impossible, however, in a relatively brief statement to record the observations and reasoning which have led me to these conclusions. Nor is there space here to test rigorously these conclusions against the many current problems in the solution of which we seem to be making relatively little headway. I can do little more here than to state these opinions.

I have also avoided any consideration of the moral issues which are inherently involved in any sound and comprehensive approach to this problem. This does not indicate that I am ignoring such principles. On the contrary, I think that they are tremendously important and that any argument of this kind which omits them is, to a considerable extent, "lopsided." In this statement, however, I have confined myself to a relatively narrow and severely objective consideration, with strictly economic implications.

I think that this whole subject is of such fundamental and urgent importance that it deserves a great deal of writing, by many people. I feel privileged to have been given this opportunity to express some thoughts on the matter.

---

* *Mr. Beekley, the author of this month's guest editorial, is a graduate in chemical engineering of the University of Pennsylvania and has been associated his entire working life with the Whitlock organization which he joined in 1909. He has been chief engineer, sales manager and vice president prior to becoming president in 1944. He is currently starting his second year as president of the Manufacturers Association of Hartford County. He is also active as a member of the American Institute of Chemical Engineers and the American Society of Mechanical Engineers.*

DICTAPHONE'S Hartford office is the hub for sales activities in Connecticut. District Manager Harry Davis directs a team that includes seven salesmen and fourteen servicemen operating out of branches in Bridgeport, New Haven and Waterbury.

(Left) SINCE 1889, Dictaphone products have been manufactured here at the firm's main plant in Bridgeport.

Dictaphone Corporation -

DICTATION HEADQUARTERS, U. S. A.

ONE of the first sights for a passenger on the New Haven Railroad as he approaches Bridgeport from the South is a sign reading: "Home of Dictaphone Corporation, Dictation Headquarters, U. S. A." In just a few seconds, the train rushes past the building where for almost seventy years the dictating equipment bearing one of the world's most famous trademarks has been manufactured.

Early History

Here are located the spawning grounds for one of the world's leading dictating machines, products that play an important part in the lives of statesmen, leaders of industry, and the professions in helping them get more done through better personal communication.

Since 1889, Dictaphone Corporation and its predecessor parent company, Columbia Graphophone Company, has built its products in Bridgeport, Connecticut. None of the original group of employees remain, but the idea which they planted has grown and prospered in remarkable fashion through the years.

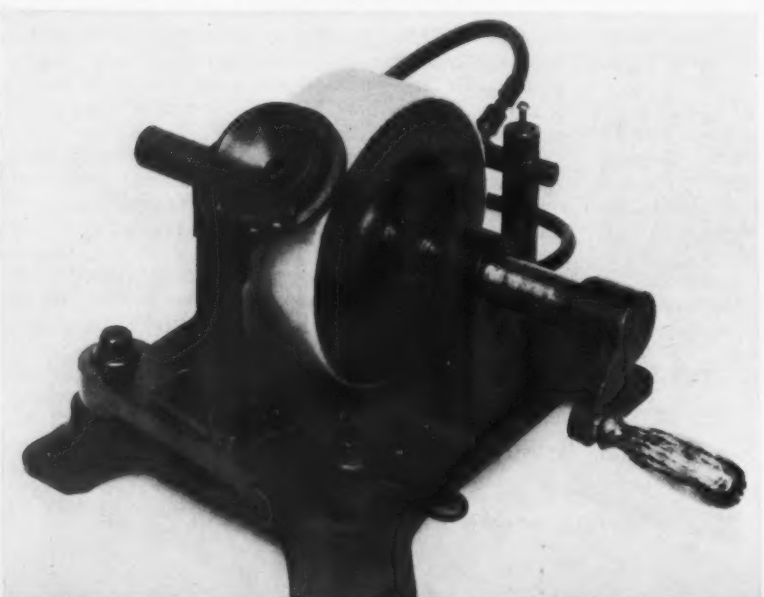
Since man's beginning, the common denominator of business has been communication. The dictionary defines communication as "intercourse by words, letters or messages; interchange of thoughts or opinion." In fact, communication is the blood stream of business—the channel through which thoughts, decisions and ideas are expressed.

For more than six decades, this is the idea that Dictaphone and its lineal ancestor, the Columbia Graphophone Company, has been concerned with—better communication. Through the office dictating machine, men and women have found a method that speeds thought into action; a logical system for expediting their tasks.

Like several great inventions of the 19th Century, Dictaphone origins trace to genius Alexander Graham Bell. It was the imaginative Bell who sponsored the development of the first practical dictating machine.

The Government of France had awarded him the Volta Prize and 50,000 francs (in those days $10,000) for his invention of the telephone. He

THIS IS THE first practical dictating machine developed by inventors Bell and Tainter. It is in the Smithsonian Institute, Washington, D. C.



JOHN deK. ALSOP, president of Hartford County Mutual Fire Insurance Company is one of the many leading Connecticut executives who uses the new Dictaphone Time-Master.

(Right) PHOENIX INSURANCE COMPANY, Hartford, uses the Dictaphone Telecord System in addition to individual Dictaphone Time-Master machines. Telecord phones are connected to centrally located recording machines.

promptly set up the Volta Laboratory Association under his direction and staffed by his cousin Chichester Bell and Charles Sumner Tainter. Together with these men, he worked on the problem of recording and reproducing sound for use in connection with his invention of the telephone. In the three man team, Alexander supplied the electrical knowledge, Chichester the chemical and Charles Sumner Tainter the mechanical.

Records of the Smithsonian Institute show that the first practical dictating machine was developed prior to 1881. The basic patent was issued in 1886, and from that first machine, the Dictaphone lineage is traced. The early efforts of these aggressive and inventive people, pioneering in the mysteries of sound and better communication, made possible the birth of Dictaphone Corporation.

Earliest use of a Dictaphone machine occurred in Washington, shortly after the Bells and Tainter formed the Volta Graphophone Company. Edward D. Easton, partner of the firm of Johns & Easton, shorthand reporters for the House of Representatives, found the equipment useful for speeding up transmission of his notes. He would take down the information in shorthand, and then return to his rooms and dictate it to this early model machine.

Easton's enthusiasm ignited great interest in the business possibility of the machine and a company was formed. In 1888, Charles Sumner Tainter rented space in Bridgeport and after a year at the old Howe Sewing Machine Plant, the operation was moved to its present location at Railroad and Howard Avenues where the manufacturing operation has been conducted ever since.

Shortly after the turn of the century, the company became the Columbia Graphophone Company with Edward Easton, the original court reporter, as its President. Included in its activities were the sale of phonographs and records for amusement. However, even in those early days, the design of the commercial model differed from that of the amusement phonograph.

EACH YEAR the Dictaphone Sunshine Club entertains employees' children at a gala Christmas Party. In 1953 more than 1,500 parents and children participated.

SPIRIT RUNS HIGH among the 1,500 employees who comprise the Bridgeport Dictaphone Family. Here Robert Muller, an engraver, demonstrates his job to son Robert, Jr. and wife.

Dictaphone Corporation Launched

In 1906 the name "Dictaphone" was copyrighted and became the distinguishing mark of the machines manufactured for business dictation by Columbia Graphophone.

In 1918, C. K. Woodbridge became associated with the Columbia Graphophone Company in charge of the sales, service, and distribution of the dictating machine business. By 1921, following the expansion after the first World War, the Columbia Graphophone Company had over-played its hand and the receivers for the company assigned to him the problem of disposing of the dictating machine business. The investment banking firm of Swartwout and Appenzellar was convinced by Mr. Woodbridge of the great possibilities of the enterprise. In January of 1923, Dictaphone Corporation was formed with Richard H. Swartwout as Chairman of the Board, Paul Appenzellar a Director, C. K. Woodbridge as President and Director, L. C. Stowell now President of the Underwood Corporation, as Secretary. Mr. Woodbridge is currently Dictaphone's Chairman of the Board and Chief Executive Officer.

If the visionaries, Bells and Tainter, had known the future of their early invention, they would have been amazed. The idea of dictating to a machine grew slowly in the 20's and 30's, but in those early years, the seeds of a major industry revolution were being sown.

Electronics Revolutionizes Machine; Expands Usage

There have been scores of important and interesting developments in the Dictaphone business, but, historically, they seem minor when Dictaphone engineers adapted electronics to dictating machines.

Until electronics was brought to bear, dictating instruments were acoustic devices for the recording and reproduction and transcription of the human voice. They were from the start amazingly logical expediters of the essential communications of the business world: correspondence, memoranda and so forth. But technically they had their limitations.

Dictaphone first built and sold electronic dictating machines in the early 1940's, but the full force of the electronic revolution wasn't felt until the Dictaphone Time-Master was introduced in 1948. Here was an instrument, reflecting all the advantages imagined by Dictaphone prospects, that was to sweep aside all previous product objections and bring dictating machines into their own.

Probably the biggest reason for this acceptance of the Dictaphone Time-Master in companies throughout the world, large and small, is best expressed in one word: Dictabelt.

The plastic Dictabelt record is the key to the Dictaphone Time-Master: the exclusive Dictaphone recording medium that for the first time has eliminated the bugaboo always associated with dictating equipment—resurfacing. By adhering to the age old and test-proved principle of recording on a helical surface, the Dictabelt retains the basic advantages of cylindrical recording—i.e., uniform backspacing for secretaries, and constant groove speed. Yet Dictabelts are versatile and so inexpensive they may be thrown away after a single use. They are sturdy and unbreakable, ideal for mailing or filing.

The Dictabelt has opened up a new path for business communication. Because of its unique mailability feature, traveling men dictate reports wherever they may be, and their voice, via Dictabelt, can be sent to the home office for listening or transcribing. Thus businessmen can keep in touch with their office and record on-the-spot reports and observations efficiently and economically.

Because of the new popularity of the Dictaphone idea, offices everywhere are seeking additional ways to mechanize their communication. An adaptation of the Dictaphone Time-Master, the Dictaphone Telecord System for central dictation, serves as an auxiliary, and in some instances, a primary method for dictation.

It is best described as a "network" of dictating phones whereby users may phone their dictation to a centrally located Dictaphone Time-Master recorder.

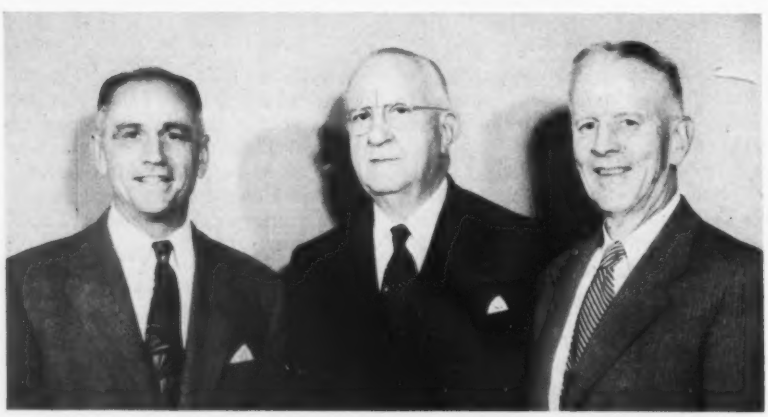
In most instances, the Dictaphone Telecord System involves the use of separate phones, which, in the simplest installations, are connected directly to recording machines by relay boxes. Each phone has simple controls enabling the dictator to stop, start, play back, make corrections and indicate length of letters.

Most recently, a way was found to consolidate the new Dictaphone Telecord System with a company's internal dial phone system. At the John Hancock Mutual Life Insurance Company in Boston, Dictaphone Time-Masters are connected to the internal switchboard, and more than 600 company internal telephones now double as dictating instruments.

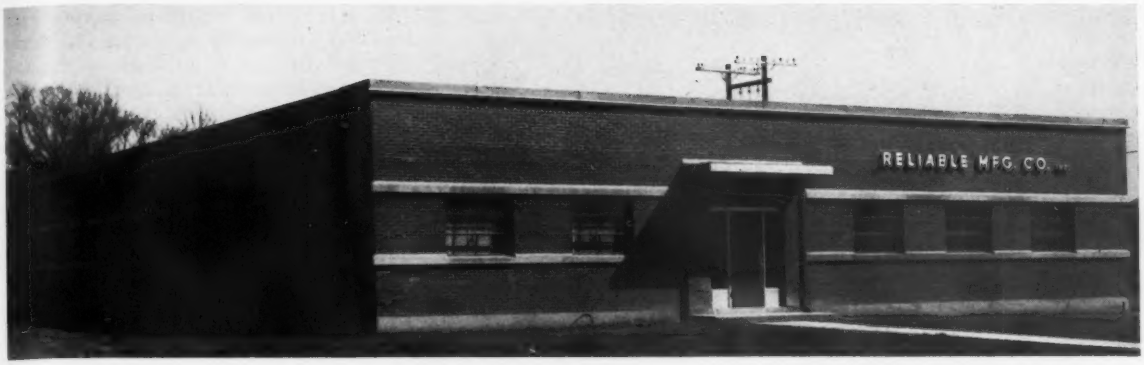
Dictaphone Telecord has proved ideal for hospitals and other places where dictators can profitably use remote dictating facilities. In other cases, it is practical as the facility for those whose volume of correspondence is light or sporadic.

Other Dictaphone products include

(Continued on page 55)

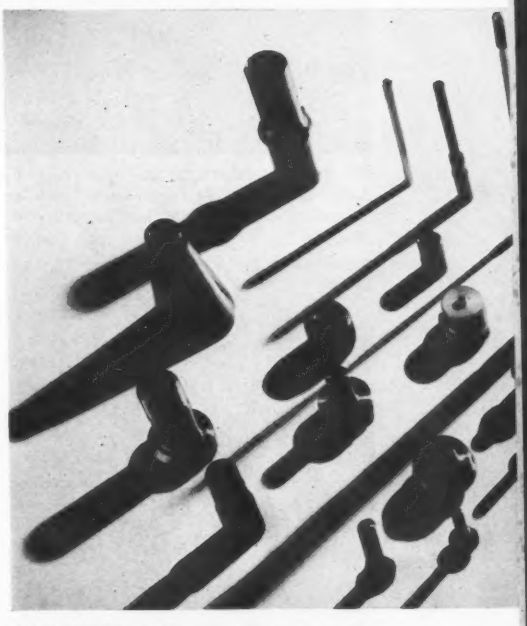


CHAIRMAN OF THE BOARD C. K. Woodbridge, is Dictaphone's chief executive officer. With him are T. H. Beard, vice chairman of the executive committee (right) and Lloyd M. Powell, president (left).



THE NEW PLANT of Reliable Mfg. Co., Inc. on Granby Street, Bloomfield.

The Reliable Mfg. Co. Story



A VARIETY of the component parts production of Reliable Manufacturing Co.

BEFORE the close of the last depression, Frank S. Cole gained a livelihood for himself and his family in the role of a toolmaker. As he obtained more experience in his chosen field, in several local job shops, he became aware of a gnawing feeling of dissatisfaction. What did it take to acquire a tool shop, such as the ones he had been working in? Why couldn't he, Frank Cole, own such a shop? It would be nice to own a home of your own, and the automobile of your choice, which such shops apparently afforded their proprietors.

In 1941 Frank, at the early age of 24, made the big break. Goaded on by a burning desire to provide a better future for an increasing family, he ignored the "wolf at the door" to start his own small company—the Reliable Manufacturing Company—in a rented corner of a garage workshop. To a few items of leased equipment he harnessed his untested management abilities, mechanical skill and courage into a team that defied almost overwhelming odds to make his dream of success come true within one year.

In 1942, with the second World War well under way, Mr. Cole visualized the tremendous possibilities of producing screw machine products in volume for use in wartime products, and proceeded at once to make the conversion from toolmaking to the manufacturing of custom made parts. One of the most difficult problems facing the young organization was the continuous requirement for more floor space. Increasing production demands caused the company to rent space at no less than four different addresses in Hartford.

The trials and tribulations of leasing

THE BUSINESS OFFICE of the firm's new Bloomfield plant.

AT THE OPENING of the new plant, President Frank S. Cole (left) and Preston C. King, Bloomfield Town Manager, look on as G. E. Bramon, of the Bloomfield Town Council, cuts the ribbon.

T. J. HEATON studies a film strip in connection with the analysis of intricate experimental components produced by Reliable.

space were many. Restrictions as to floor loads, vibration, power difficulties, insufficient heat for the night shift, and lack of proper parking facilities, drove Cole to resolve that one day he would erect his own factory. This ambition was realized in December of 1953. The factory is now housed in a brand new ultra-modern one story building in Bloomfield containing twelve thousand square feet of floor space.

The company, now employing some sixty people, specializes in screw machine products produced from wire and bar stock, on both single and multi-spindle equipment, the largest diameter being one and seven-eighths inches. The company is in a position to follow through and complete the components requiring such operations as centerless grinding, thread rolling, broaching, profiling, milling, drilling, tapping, etc. Operations requiring the use of hand screw machines and turret lathes are also performed. The company is not limited to making parts alone. It has the experience and "know how" to manufacture both sub and final assemblies, either in small job lots or quantities which require mass production on straight line conveyors.

The Company's staff is well versed in estimating, tool engineering, methods, statistical quality control, production control, cost control, and raw materials inventory control.

Numbered among Reliable's customers are manufacturers of electrical wiring devices, appliances, radar, electronics, aircraft engines, typewriters, accounting machines, machine guns and many other parts and assemblies of famous name products. What the future holds no one knows but heavy odds of good fortune are stacked on the side of even greater success for this Horatio Alger venture which one day may expand to produce and market its own name products.

Here again is the story of a mechanical-minded American with vision and the nerve to make it reality in spite of a lack of money, high taxes and government regulations. It is another tribute to our American political and economic system which permitted many of today's industrial giants to start as small one-man shops. Few countries exist in the world today where so much can be built up from so little in so short a period.

The present officers of the company are: Frank S. Cole, President and Treasurer and Louise Cole, Vice President and D. C. Coleman, Secretary and Assistant Treasurer.

A PORTION of the interior of the plant showing the automatic screw machine department.

The WHY and WHEREFORE of a Salary Survey

By EDWARD BALL, *Senior Consultant*
Ekholm Associates, New Haven

WHAT ARE my competitors paying their plant managers? What's the going area rate for experienced supervisors? How does our salary curve compare to similar industries in other areas? What yardstick can we use to compare our positions and salaries with those of other companies?

TODAY, industry leaders are taking their salary programs down from the shelf, blowing off the dust and asking themselves the foregoing questions. Caught in the squeeze of high personal income taxes and the limited number of available qualified management people, industry is recognizing the pressing need for complete salary structure overhauls.

Promotions, new executive compensation plans, salary increases, transfers, hiring rates—all must have a relationship to an established salary structure. And all are important in attracting and developing younger executives and holding on to the present proven leaders.

But when an existing salary structure is obsolete, erratic, patently inequitable or discriminatory, its continued usage as a base for further salary increases or other compensation adjustments will tend to compound an already poor situation. Structures containing such imperfections can deprive a company of needed talent at all managerial levels.

Fundamental to the overhaul of the salary structure is an analysis of salaries paid in other industries. However, obtaining salary information is a delicate procedure and the course is dotted with obstacles.

Salary data is usually guarded with the same care as top secret atomic formulae—particularly and understandably so in the upper echelons of management. Then there's another problem. The positions of controller, vice president or foreman in one company are not necessarily comparable to those of another company. And, too, levels of compensation differ from area to area even in the same industry group—often due to cost of living variances.

EDWARD C. BALL

Experience with several Connecticut companies who are completely revamping their salary relationships through an evaluation of management positions and an appraisal of management personnel performance has shown a clear cut and sound method for obtaining the necessary salary information both industrywide and areawide.

Problems Overcome

To obtain salary ranges for specific positions from a competitor will prove difficult for a company when one of its own executives is asking the question. This information, when collected by a reliable outside firm or association, is much more readily accessible because the independent agency will be bound to secrecy. The technique to be outlined does not require the identification of either the company, the man or the position. It will be both valid and effective without these labels. If a reputable consulting firm uses this procedure, remarkable cooperation from industries in the development of salary studies may be expected.

The problem of comparing similar positions in companies of different size and product is more complex, but its solution is extremely important. Too often businessmen who have mastered the whole alphabet of hourly rated job evaluation as a basis of obtaining wage information forget their A B C's when dealing with salaried positions. In accumulating salary data there is a tendency to set up measurement standards based upon position titles, number of men supervised or monetary responsibility for machines, equipment or the product.

Even casual observation of these factors will show that a vice president in charge of production in a company of 500 people should not be compared salarywise to a vice president in charge of production in a plant of 10,000. Nor can a foreman supervising 20 people in a needle trades operation necessarily be compared to a foreman in a plant that manufactures steel rolling mills. What is needed then is a yardstick which will serve as a common denominator to be used with equal reliability for all types of positions in different kinds of industries.

The yardstick that will do this job is based not upon position titles, men supervised, and so on, but upon factors inherent in all management positions which can be given point values. These basic factors are Judgment, Responsibility, Knowledge, Aptitudes and Effort plus a consideration of Working Conditions. Positions are thus evaluated to determine to what degree these factors are required in each position. The greater their importance to the position, the higher the point value assigned.

Thus the two vice presidents mentioned earlier would probably come up with widely divergent point scores. Position requirements for the Veep in the small plant might give his position only 700 points while the position of

production vice president in the large plant would require a high degree of the factors mentioned which might give that position a point value of 1000.

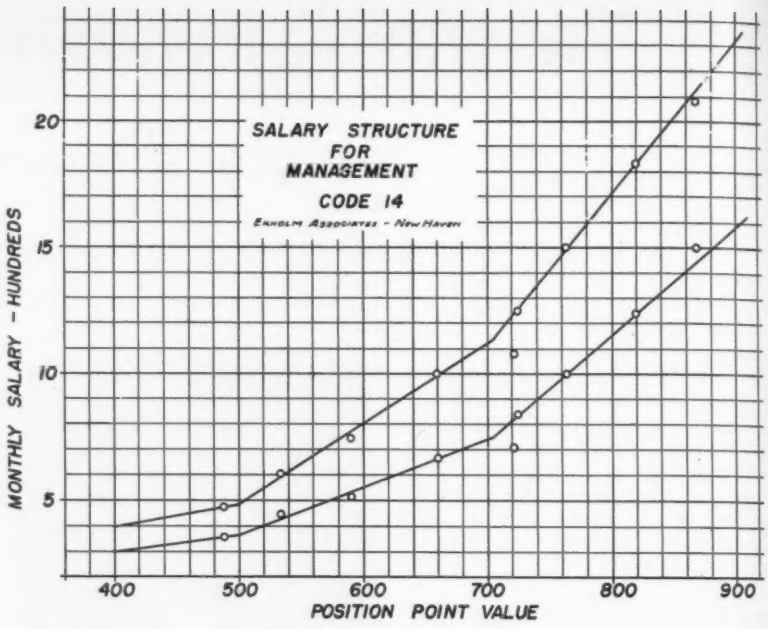
Handling the Survey

What about the survey itself? As an example we'll take a manufacturer producing refrigerators. This company is interested in knowing how its salary structure, from foreman to president, compares with competition—competition not only in the refrigerator industry but competition in the executive labor market locally and generally. Before the survey is initiated the company has had all its salaried positions evaluated and point values assigned. Present monthly salaries and point values assigned to each salaried position can then be shown graphically.

Selection of companies for the salary comparison is important. The refrigerator manufacturer should include in the survey at least four other firms manufacturing refrigerators regardless of their geographical location. In addition it will want to include at least four companies in his own labor area regardless of the product they manufacture. It is desirable, but not essential that these firms be of similar size. And finally, as a bench mark, there should be included in the survey at least four companies of national importance having plants in several separated areas.

The objective with each of these twelve or more selected companies is the same—to come up with salary ranges related to the points obtained from evaluation of positions in order to develop a graph of each company's salary structure. It is completely unnecessary to evaluate all the positions in the companies selected for the study. A valid graph of their salary structures can be obtained by choosing five to eight positions whose responsibilities and requirements are clearly defined or understood by their own management people. Line positions with as wide a differential in level as possible are preferable. Because a company's line management organization tends to be similar to the military chain of command type of structure, these positions have the best defined relationships, one to another. Staff positions can be evaluated as accurately, but usually require more searching analysis by the investigator.

Having selected, with the management of each company, the few "key" well understood positions, these positions are then evaluated and points assigned the salary ranges, which are minimum and objective salaries for each position, are plotted and the graph drawn.



A Typical Salary Structure

The Final Report

The final report to the initiating company will include the salary graphs of the 12 or more surveyed companies. They are grouped by industry and labor area. None is identified by name, with code letters being used instead. Using a film transparency on which its own curve has been plotted, the initiating company can overlay its structure on each of the other graphs. At a glance the company's management can see where their salaries are low, where they are better off and where they are in line with the remainder of the industries.

Copies of the final report can be made available to the cooperating companies with transparencies of their own structures for similar comparison. The "key" positions which were evaluated and scored to establish their curve are identified only to them. These complimentary copies of the report provide a courteous "thank-you" to the cooperating companies.

Naturally, the initiating company with its complete positions evaluation will have a more detailed picture of where it stands, although it will know only its own code number as is the case with the cooperating companies.

Working in the dark with half truths, rumors and bits of information is dangerous for any company attempting to modernize its salary structure. The procedure outlined has proved a sound method of focusing the spotlight of fact on a normally dark and secret corner of management knowledge.

Graph Shows Salary Curve

A typical salary structure used in the development of a salary survey is shown in the graph above. Seven positions which are clearly understood by management were evaluated and entered on the graph based upon their point value. The upper line represents the maximum of the salary range while the lower line represents hiring rate or base salary. The seven positions evaluated for this typical graph include:

(1) Service Foreman
(2) Production Foreman
(3) General Foreman
(4) Superintendent
(5) Plant Accountant
(6) Plant Engineer
(7) General Superintendent

Evaluation of the seven positions is sufficient to create a reasonably accurate salary curve for this company.

Exploiting Current Export Sales Possibilities

By H. H. BOHLMANN, *Export Manager*
The Seamless Rubber Company, New Haven, Connecticut

THIS is the second in a series of articles by Mr. Bohlmann, chairman of the MAC Foreign Trade Committee, which *Connecticut Industry* is publishing to acquaint manufacturers with today's sales opportunities in foreign markets. The author is also a well-known and respected national authority in the export field.

THE current small business recession in the United States, however little it may affect certain industries or individual manufacturers, does drive home the point that the average American manufacturer needs a healthy and expanding export business to help keep his manufacturing operations at a continuing high level.

Progressive top management has come to realize on an increasing scale that it must give its export division at least the same support as the domestic counterpart if it wants to have a worthwhile export business which can be invaluable particularly when domestic sales and profits are declining.

For that purpose the export manager requires the necessary authority and full support in connection with his efforts to expand his company's export sales. In this respect he must of course be in a position to give his overseas customers at all times the same prompt service that those in the United States are enjoying. Thus, the company should make available for export an equitable share of goods during times they may be in short supply.

Today there are many indications that the free world is well on the way toward a sounder economic condition as evidenced by a steady increase, for some time now, in the foreign exchange reserves of individual trading nations. Since this is strengthening their currencies the day is coming closer when general convertibility of currencies is once again a reality. Meanwhile, the writer has learned, first hand, on his recent round-the-world business trip, that import and exchange restrictions against American products are easing in a number of countries. One of them is India, for

H. H. BOHLMANN

example, which had previously been allowing imports only from countries outside the dollar area, except items that could not be obtained elsewhere.

This trend toward a further easing of restrictions against American products provides numerous opportunities for American industry, in general, and Connecticut industry, in particular, to expand export sales, notwithstanding increasing competition overseas from foreign manufacturers. While the U. S. exporter may find that some goods made in other countries, especially in Europe and Japan, carry price tags disconcertingly lower than those of similar American products, he should still be able to obtain a big share of the available business in many markets abroad. For one thing, he should bear in mind that foreign goods sometimes only *seem* to be as good, that our style is frequently better and our deliveries often more dependable.

Reports from the field that foreign goods are being offered at prices, in some instances, below our factory costs need not give rise to despair if we remember similar situations in prewar years. After all, everyone knows that low prices alone will not capture a market. One American exporter, for instance, finds that he can not only successfully maintain but also actually improve his position in a number of European markets in the face of competition from goods made locally and in neighboring countries. European buyers continue to show their preference by sending orders to the United States, feeling that our country is far in the lead industrially and that our goods are bound to be superior.

The well organized export executive will of course center his major sales and promotion effort on those countries that furnish a steady and continuing sales volume. But, he will not overlook markets that may be individually small or contribute little to total sales. Such markets, if intensively and intelligently covered, might well make the difference between going ahead or sliding back in total sales volume. A third group includes those countries that are currently closed to the exporter's products. These markets will be watched so that advantage can be taken of any opportunity that may open them up even if only to a small extent.

Representation Important To Success

It cannot be emphasized too strongly that the caliber of the local representative or distributor abroad is the most important single factor that will keep an export sales organization running efficiently and profitably. Therefore, the exporter will keep this part of his sales organization under close and continuous study. There is no question but that an exporter's biggest asset is the representative who combines aggressive salesmanship with dependability and facilities to fully cover his sales area. The good local representative is

worth all the constructive support you can give him in the way of catalogs, price lists, folders, display material and samples. This will help make him feel that he is a part of your organization; that not only are his efforts appreciated but that his work is actively backed by the home office.

In some instances, a market may be so diversified or extensive, with population centers so far apart, that one representative, no matter how enterprising he may be, cannot effectively cover all sections. Recently a case came to the writer's attention where a certain distributor who had long enjoyed exclusive rights in a large market, became quite unhappy when the export manager proposed that the territory be divided into two parts and an additional representative appointed. Reluctantly the distributor finally consented to a trial of the new arrangement. Soon after the new set-up had begun to function, the distributor was agreeably surprised to find his own sales climbing, with a reduction in his expenses. It became apparent that formerly he had been trying to spread himself too thinly in order to do at least some business in every part of his territory, whereas now he could reach every potential customer in the reduced area nearer to his headquarters. Meanwhile, the other distributor is developing new business which the exporter would not have obtained.

Sales Aids to the Distributor

Many overseas distributors are likely to visit company headquarters at regular intervals. On such occasions, the exporter has the opportunity of showing his appreciation for the hard work the local representative does for him by extending a cordial welcome and warm hospitality. Of course, these visits are valuable for the distributor as he can see at first-hand how the goods he is selling are made and learn about new product developments. Besides, a deeper knowledge of the line and the latest information concerning it will give him greater self-confidence in his dealings with customers, thus helping him increase sales.

Distributors who cannot visit the exporter's headquarters, especially welcome direct mail campaigns, since they are useful in all markets under most conditions. They show the buyers that the representative has the active support of the manufacturer. Such campaigns also indicate the manufacturer's interest in their business by providing them with information direct from the factory about recent developments and new items added to the line.

The foreign trader in reviewing the various elements of export sales, takes a good look at his present advertising program, as he knows that well planned export advertising is a strong support for the local distributor. Advertisements appear in publications circulating among his trade and frequently also in those reaching the ultimate consumer, depending on the kind of product involved. Export advertising campaigns are mostly centralized through an export advertising agency in the United States. Advertising copy, when correctly composed, stresses the profit the prospective buyer can make with the products in question, instead of indulging in panegyrics about the exporter's unusual manufacturing skill or similar messages that merely "blow his own horn."

Export advertising can also be used to inspire the local distributor to special sales efforts, apart from awakening the interest of foreign buyers. Some export managers accomplish this by sending each distributor, before the campaign begins, a compact folder containing all advertisements that are to appear. The accompanying letter explains to the distributor how he can get the greatest benefit by starting an intensive sales campaign timed to coincide with the advertising program.

Solving the Distributor Problem

Now let us consider the problem of the unsatisfactory distributor. In his careful market investigation, nearly every exporter will find among his distributors some that do not measure up to expectations. They may have done fairly well during the immediate postwar period when little more effort was involved than to write out orders from impatient customers. However, now that we are again facing a buyer's market they apparently lack what it takes to meet the situation, sending perhaps a few insignificant orders at infrequent intervals; the rest of the time registering complaints and thin excuses.

In verifying what his relative position is in a market, U. S. Department of Commerce Report No. FT 410 can be very useful for the exporter. He is aware that this Report classifies U. S. exports to foreign countries according to Schedule B commodity groups. It will in many cases enable him to determine his share of the total of American exports of goods in his category. If he finds that the percentage is too small, then the sooner he changes his distribution arrangements the better. First, of course, the exporter will make sure that a more enterprising and better qualified distributor can be found.

In some markets the method of distribution may have to be changed to produce maximum sales. For example, the export manager may now have a local representative operating on a wholesale distributing basis, with many other wholesalers importing competitive lines. Analysis may show that sales in that market are unnecessarily restricted to the trade served by that one wholesaler because the competing wholesalers will not buy from him. Here the appointment of a sales representative who works on a commission basis may solve the problem, because, acting solely as a representative, he can solicit business from every wholesaler in his territory, as he competes with none of them. The local commission representative may sometimes perform a useful service, and make extra sales. By carrying a stock of fast-moving items from which he can fill emergency requirements of his wholesale importing customers he makes these extra sales but does not compete with them in selling to the retail trade.

Trade Opportunities

Trade opportunities for American suppliers are also available as a result of dollar credits and grants to friendly nations, administered by FOA, the U. S. Foreign Operations Administration. FOA Small Business Circulars and FOA Bulletins contain information in this connection. This includes the amounts of approved purchase authorizations of specified products and lists of importers abroad that are authorized to purchase such goods through regular commercial channels.

Special sales prospects exist in international fairs and exhibitions, particularly in Western Europe. The writer had occasion to reconfirm this on his recent business trip there. The foreign trader may be reminded of a coming event of this kind by his distributor if he is planning to take a stand at the fair. He will need help in setting up his exhibit, and the exporter can support him by supplying catalogs, posters, folders, preferably printed in the leading European commercial languages and fresh samples of representative items of his line of products. The crowd of visitors to the fairs swells the

(Continued on page 52)

A Guide to Management Appraisal of Its Advertising

By ROLAND B. SMITH, *Assistant Professor of Advertising*

The University of Connecticut

IN TODAY'S drive for increased sales, advertising is one of the most important working tools. Important as it is as an aid to building profitable sales volume, top management's knowledge of its own advertising is normally small by comparison with their understanding of the production and financial phases of the business. In an effort to assist management to a greater understanding of the many facets of advertising and which ones should be used under given conditions, *Connecticut Industry* presents what amounts to a short course in advertising, in the form of a four-part series of articles by a well-known instructor and authority in the field.

Part I

Why Consumers Buy

A FEW years ago I was asked to meet with the president of a large corporation. Over the luncheon table he asked if I would tutor him in advertising. He explained, "I came up through sales, and I know sales; but I don't know enough about advertising. My advertising managers and my agencies talk to me about appeals, campaign themes, and media and things like that and I really can't tell whether they're talking sense or nonsense."

I listened as he continued, "In our agency meetings one agency will come up with a campaign idea for one of our products; another agency will come out with another theme for another product. I have to approve these ideas. On what basis can I make sound decisions and really supervise this part of the company's operations unless I know at least some of the fundamentals of advertising?"

Many top level executives do not have an advertising background having come up the ladder through engineering, production, finance or sales. Yet, top management is being called upon more and more to pass judgment on appropriations, advertising and merchandising ideas, media and similar matters. Actually advertising is a growing responsibility of top management. The large sums of money involved and the consequences of advertising on market position are forcing

ROLAND B. SMITH

it in that direction. It seems likely therefore that the time and attention management must devote to its advertising will increase. This poses a serious problem for many executives, and indirectly for their advertising managers and agencies.

Agencies Can Only Advise

Although advertising agencies have assumed over the years more and more functions as technical advisers to management, they can only advise. It is management that must make the final decisions, give final approval. On what basis can management make its judgments? A workable solution would seem to lie in an understanding of the basic principles upon which advertising is predicated. Such an understanding would give top executives a base from which to approach the broad problems with which they must deal; it would make for more understanding between the advertising manager and top executives, and, lead to more sympathetic cooperation between client and agency. At the same time this would give management the means for more discriminating judgment of what it is called upon to approve. Finally, the importance of advertising to the typical firm presses for a level of acquaintance with advertising by top management at least equal to its understanding of finance, production and economics.

To offer a guide toward this middle course is to risk oversimplification. However, the intent here is to give assistance where assistance is welcomed, and not to engage in academic pyrotechnics. With this objective, some bench marks are suggested together with some examples to illustrate their general application.

Advertising: Visualizing Ideas

Basically, advertising is a process of visualizing ideas. The range of such ideas runs the gamut of the advertiser's imagination:—from why his product should be bought now, to ideas concerning the state of the union or of the world generally. Thus the scope of advertising is very broad. Considered as a controlled means of communicating with people, this concept lays the foundation for a basic principle of advertising management: *the only time a firm should not use advertising is when its management has nothing to communicate to its publics.*

The purpose of advertising is, essentially, to modify human behavior: to influence people to do something or to think something. It is only reasonable then that we should base our advertis-

ing on what we know about how and why people behave as they do.

Desire for Relief

Broadly speaking, people are motivated by their desire for satisfaction,—for relief from problems. This desire stems from a recognition—conscious or sub-conscious—of a difference between where they "are" and where they'd "like to be." People seek relief from financial worries, headaches, indigestion, concern over the more rapid financial or social progress of their fellows, or, from the fear that they might lose what they already have in income, prestige, and so on. It is this recognition of actual or potential lack, and the consequent discomfort that motivates people to seek relief. A sense of tension is basic to motivation to work, to save, to buy goods.[1]

People won't change their ideas, alter their habits, they won't buy goods unless they first become dissatisfied with the status quo. The degree of dissatisfaction necessary to evoke motivation varies among people with respect to different products. But *they must be dissatisfied enough to overcome inertia, and the other "costs" involved before they will buy.*

On the other hand, whatever action yields the relief and gives satisfaction will be continued until the returns are overcome by the costs entailed. For example, we don't usually scratch our backs unless we feel an itch. To scratch the itch requires a rather awkward twisting of the arm, so we ignore the itch until it annoys us enough that we will make the exertion. We continue scratching until a balance is struck between the relief from itching and the inconvenience and muscular strain of scratching. Having regained equilibrium we stop. The same psychological processes apply when we buy goods.

Motivation: Dissatisfaction

Dissatisfaction frequently arises from a comparison between what one has and what he might have. Obsolescence in machinery is an example. A machine may be in perfect running order. Management may be perfectly satisfied with it; that is, until the superintendent, say, learns (perhaps through advertising) about another machine that will do the same or a better job more efficiently. At that point dissatisfaction with the present machine may set in, and motivation to buy the new machine will have been established. A sense of dissatisfaction, of disequilibrium, of tension—however one may wish to express it—is necessary before motivation sets in.

Traditionally this idea has been expressed in terms of *benefits*—something over and above what the consumer already has. But, of course, not just anything is a benefit. A benefit exists only insofar as it is something the buyer believes will eliminate his dissatisfaction, or at least, will reduce it. It is something he thinks he *wants*. This is why it is so necessary for advertisers *to know what their consumers want—what specific wants they have—before attempting to develop advertising appeals that will be effective.*

This point can be illustrated with a pair of split-run advertisements by the Commercial Travelers Mutual Accident Association of America. In this case the benefit offered was the same in both advertisements, which were tested in the Metropolitan edition of the *New York Mirror*.[2] This benefit was expressed in the headline: "Personal Accident, Health, Hospital & Surgical Insurance Direct at Cost—Not a Limited Type Policy."

There was, however, this difference: in one headline the word "personal" was in hand lettering; while in the other it was in the same size type as the rest of the headline. Also, in this second headline were the words: *"for your security and peace of mind"* (italics mine). This phrase related the benefits-insurance—directly with a dissatisfaction or need—the need for "security and peace of mind." The advertisement mentioning "for your security . . . " pulled 31 percent more inquiries.

Dissatisfaction Created

Sometimes, however, a product seemingly satisfies no particular kind of tension presently recognized by consumers. In such cases advertising may *create* the dissatisfaction. As in the case of the machine mentioned previously the advertising may call attention to a product that will perform a given task better or more economically. Or, it may call attention to a hitherto unrecognized or vaguely recognized lack. Listerine did this with its halitosis appeal. Lifebuoy soap did it with "B. O.". In addition, advertising may arouse dissatisfaction by announcing not just a better product, but a new type of product, a new or better *way* of doing something, e.g. the electric light, mechanical refrigeration, "Fluid Drive."

For many products however advertising does not attempt the creation of dissatisfaction. It merely announces a product or service, calling attention to its competitive merits, leaving to inference the particular dissatisfaction for which the product is a palliative. But even for competitive items like cigarettes and the rather ordinary goods like chewing gum, remarkable results have been achieved by the advertisers who built their appeals from a knowledge of consumer tensions. The Philip Morris "No Cigarette Hangover" is an example, as is that of Wrigley's chewing gum as demonstrated by tests conducted by Weiss & Geller. Recently an interesting example has appeared; that in behalf of Sunkist lemons. The appeal is "When The Doctor Says 'CUT DOWN ON SALT' " . . . "The taste of salt is replaced by the tantalizing tang and aromatic flavor of lemon." When introducing a new type product, when pioneering,[3] it is important that the advertising visualize for the consumer his relative disadvantage in not possessing the advertised article.

Consumer Goals

Satisfactions (whatever people may consider good or worth having, striving for, etc.) represent goals. Some of these goals are definite and immediate, like relief from an itch. Some are indefinite; we just don't feel content, but neither do we really know specifically just what we do want. And, of course, some goals are distant or abstract, like being happy, successful.

The goals toward which people strive are determined by a number of forces; bodily needs (relief from hunger), psychological needs (security, approval), physical environment (protection from the elements), and by our culture ("one ought to be a success"). The relative importance of various goals to any individual varies also with

[1] *Cf. "Find the Suffering Point and Sell," Ernest W. Whitney, Bruce B. Brewer & Co.,* Printers' Ink, *February 17, 1950, p. 112.*

[2] *This and the other test results have been taken from the "Which Ad Pulled Best" feature of* Printers' Ink, *by courtesy of that publication.*

[3] *Advertising designed to encourage acceptance of a new type product, e.g. home permanent over beauty shop treatment, is pioneering advertising. The best known exponent of this idea, if not its discoverer, is Otto Kleppner, the Kleppner Company, N. Y., author of the best selling advertising text,* Advertising Procedure *(Prentice-Hall, N. Y.) 4th. ed., ch. 2.*

age, sex, income, marital status, religious beliefs (or the lack of them), educational level, social status, national background, racial heritage, political leanings, and the like. For example, a second generation immigrant is much more concerned with becoming American in speech and behavior than is the native-born citizen.[4] Some dietary habits are governed by religious laws. The better educated person prides himself on his rational (versus emotional) approach to his problems. Certainly the goals of a ten-year-old differ markedly from those of the fifty-year-old, just as what most women want from life differs from the ends sought by most men.

Benefits: Relief from Tensions

People strive toward various goals because to *them* these goals are important. The goals represent gratification of a want, relief from a "tension." Whatever a person believes to be a means toward the achievement of a goal (be it an ultimate goal like happiness, or an immediate goal like relief from a sore corn) *that "means" takes on some of the importance attaching to the goal itself.* Hence, if a product is believed to be the means toward a goal, that product becomes important,—it takes on a measure of value.

For example:

A man wants, let's say, business success. His present situation causes him dissatisfaction, or tension. His dissatisfaction builds up within him a drive, a drive to do something to reduce his tension. Relief from this tension becomes important to him. He reads an advertisement for a correspondence course in business. The course is advertised as "The Pathway to Business Success." Insofar as the man believes that course will help him get what he wants, some of the importance, or the value, he attaches to "success" is transferred to the course, and the course itself becomes important to him.

Similarly, a woman wants to be admired,—by men and by other women. If she believes that a certain brand of face powder will help her toward this goal the powder becomes valuable to her and she will pay money and go to some trouble to get it.

Advertising Objective

Here clearly is the primary objective of advertising: *to establish the advertised product in the minds of prospects as the means to attaining some particular goal.* A pair of tested advertisements for Towmotor fork lift trucks and tractors, split-run in an issue of *FACTORY*, will illustrate.

One ad boldly headlined *"THE RIGHT STEP"* used a figure of speech to associate the idea of the "right step to increase production" with a drawing of a workman's foot on the accelerator, and linked this drawing with a photograph of the equipment in action. The second ad was captioned *"STACK TWICE AS HIGH,"* and used two-thirds of the space for one photograph of the equipment in action on an unusually high stretch. Where the first advertisement linked the product to an indefinite goal, (or no goal at all), the second associated the product closely with an important goal—i.e. making most use of space. Starch ratings for the second ad *(noted)* was 22 times greater, the *seen-associated* score was 14 times greater, and the *read-most* score was 11 times greater than the first.

Advertising should try to establish the product as the *only* means, as the *best* means, or at least as an *acceptable* means within the grasp of the prospect. But for advertising to gain this objective it must not only relate the product to the proper goal, as illustrated above; *the advertising must also explain clearly and believably the how and the why of the relationship.*

To illustrate this, let's return to the Listerine and Lifebuoy examples. In both cases social acceptance was used as the goal. Bad breath and "B. O." were shown vividly as being inimicable to achieving these goals. It was further suggested that one could be guilty of offending without knowing it. This established the tension. Then, the advertised products were shown as the best means for overcoming these deterrents. And, the copy explained clearly and believably how and why the means offered could be relied upon to produce the satisfaction sought.

Motives—Appeals

This brings us to motives and appeals. Motivation is the drive, the force, that causes us to act. It arises from our perception of a lack of something, which lack creates a sense of dissatisfaction. An appeal, on the other hand, is the stimulus which arouses the driving force, either by calling attention to our dissatisfaction directly, or indirectly by the offer of a benefit.

Some important implications of this idea can be readily visualized by the illustration of a drum and beater. A drum has the capacity to boom because of the way it is made, just as we have the capacity to react. The drum is made to boom by the beater which "stimulates" it. In us an appeal acts like the beater on the drum.

The beater by itself can create a sound only insofar as what it strikes has a capacity to respond. When used on the *same* drum a beater made of wood will bring forth a sharper sound than will a beater made of sponge rubber.

And so it is with motives and appeals. In some people some motives are more responsive than are the same motives in other people. The same appeal can arouse a sharp response, a mild response, or no response, depending upon the person's motives. In the same vein, different appeals arouse different responses when directed at the same person. Carrying the analogy a bit further, it is known that a drum will not respond in the same way, even to the same beater, under all circumstances. Its response varies with the surroundings, as in humid or dry atmospheres. People don't always respond in the same manner either—even to the same appeal.

It can readily be seen then why a given appeal doesn't necessarily work equally well with people of different backgrounds, cultures, ages, and the like. It is equally clear why the same appeal may not be as effective in arousing a person at different times, under different circumstances.

Fit Appeals to Markets

This analysis spotlights *the importance of fitting the appeal used in advertising to the nature of the particular market being addressed.* It is the equivalent of using a wood beater on a drum and a steel clapper on a bell. Of course, one *can* produce some response from a bell with a wood clapper, and from a drum with a steel mallet, but certainly this isn't the most efficient technique.

It follows then that the old concept that advertising appeals to the "mass mind" is inadequate as a guide to efficient advertising practice. To standardize an advertisement addressed to different social-class markets is equivalent to standardizing personal sales talks. A sales talk can be standardized and made broad in scope by making it

(Continued on page 54)

[4] *For elaboration of this point, and an interesting analysis of what makes Americans behave the way they do, see* And Keep Your Powder Dry—*Dr. Margaret Meade.*

Inadequate Selling

By HARRY L. HARRISON, *Manager*, Advertising and Public Relations

The Miller Company, Meriden, Connecticut

AT THE recent American Management Association's marketing conference held in New York, attended by more than 1,200 sales executives from all parts of the country, Stanley C. Hope, president Esso Standard Oil Company, New York, predicting that "business will not do badly in 1954," said: "The important change that has taken place and will be emphasized this year, is the shift in emphasis from providing enlarged productive capacity to the problem of finding *more efficient and better ways of selling.*"

Selling has a two-fold objective—first, to get the order—second, to keep the customer sold. It would seem that the second objective should be stressed in the training of salesmen, because business you create is the easiest to keep. And to get repeat business costs much less than to make the original sale. Selling today is inadequate because not enough attention is given to attaining that second objective.

In going after an order, a manufacturer or jobber or dealer will practically camp on a prospect's door-step, expressing interest in the prospect's needs and desires, and pointing out the product's merits. Then, after the sale is made, interest dies. Except on lines that require periodic service, a purchaser, whether consumer, business or industrial, will in most cases never hear from the source of supply.

Incredible as it may seem, some of the larger companies are even worse than smaller ones when it comes to tactfully handling complaints, and keeping customers satisfied. This is utterly illogical, when you consider that to keep a customer sold and happy makes repeat sales easier. Not to do so means that you've got to start from scratch again, and spend more money than you should to make another initial sale.

I read the other day of a man who, 17 years ago, took out a small policy with a major insurance company. All he ever got from the company afterwards was an annual premium notice. Since then, he has bought insurance from other companies, totaling 25 times the amount of that first policy.

HARRY L. HARRISON

A friend of mine told me recently of an irritating experience he had in connection with his heating system. He wasn't getting hot water. He called the local heating contractor who made the installation, and, after considerable lapse of time, he called to look into the situation. After the contractor made adjustments at least five times upon urgent request, the trouble was finally cured. Never once, did he call back after each adjustment to see if the system was working satisfactorily.

The same man told me that he had had trouble with a boiler. He wrote to the factory after calling the representative of the boiler company without any satisfaction, and the type of letter he received from them certainly wasn't the type that would hold the company in good standing for possible future business.

Another friend of mine has told me of an experience he had with an automobile. He had purchased a used car with very little mileage on it—practically a new car. At a time when he was on a tight schedule to get his son back to school, the starter went bad. He phoned the dealer from whom he had purchased the car, to see what could be done in the way of a quick repair or the loan of another car. He got no satisfaction either way, although most dealers do have loan cars on hand. Yet two months later that same dealer called my friend to see if he could interest him in one of the new model cars that had just been placed on display!

I have had a similar experience. Only recently I had occasion to check with one of the largest refrigerator retailers on defects in my refrigerator. The letter I received from him might have been written by the office boy. It expressed no concern that, for some reason or other, their product had failed to fulfill the promises made for it which had induced me to purchase it. It was so evasive, so unappreciative of my need for service, or for keeping me as a satisfied customer, that I wrote it off as a bad buy, annoyed enough to tell others of my experience.

Inadequate selling! The trouble is, of course, that management has always given its main thought to production—to improvement of product. But, isn't it elemental that to keep on producing, to increase production, you must sell what you produce? The more sales you make, the more you can produce. And the more repeat sales you make, the less the cost of selling.

Volumes have been written on selling, but mighty little on keeping the customer sold. It is high time, as president Hope said, "to shift the emphasis from providing enlarged productive capacity (which sales alone makes possible) to the problem of finding more efficient and better ways of selling."

(Continued on page 44)

Psychiatry and Its Role In Industry

By JOHN DONNELLY, M.D., *Clinical Director*

Institute of Living, Hartford

Editor's Note: **The author of this article is a graduate of the University of Liverpool and has done post graduate work at the University of London. He has been certified in psychiatry by the American Board of Neurology and Surgery and is a member of professional organizations as follows: American College of Physicians, American Psychiatric Association, American Medical Association, Hartford County and Connecticut Medical Societies, the Royal Society of Medicine, the Royal Medico-Psychological Association and the American Psychiatric Association Committee on Psychiatric Social Work. Dr. Donnelly is widely known as a lecturer and writer on mental and emotional disorders.**

WITH the increase in the complexities of modern industry and the increased need of skilled help came the realization by those concerned in management of the necessity to provide medical care and attention for employees on the job. A high incidence of accidents and absences due to the employee's seeing a physician for minor physical ailments has led to considerable emphasis on providing local medical service within industry and on evaluating the illnesses due to industrial causes.

Changing Attitudes

Prior to the last twenty years and, for a large proportion of industry at present, it has been customary to think of employees solely in terms of units engaged in production. The individual was evaluated essentially as an economic unit in production, and within the limits of this concept, one man was regarded largely as the equal of another. However, there has been a change in attitude due to experience; first in times of depression, when labor was abundant and plentiful, and then in terms of full-employment in the post-war period when the labor market tended to dry up. Concurrently the growth of psychiatry and psychology has led to great changes in general attitudes, and it is now realized that the individual at work is, in fact, the whole individual who spends part of his time at work. In other words, he takes with him into his job all his emotional problems and his techniques of handling his interpersonal relationships.

DR. JOHN DONNELLY

It is to be realized that every individual, normal and otherwise, does have problems and attitudes. In many individuals emotional problems definitely interfere not only with the capacity to make adjustments but also with the capacity to work. Many of the emotional problems may, in fact, arise purely within the work situation, but in general it is a combination of the individual's personal difficulties and of those in the work situation which lead to such a large percentage of absenteeism, accidents, neuroses, and emotional ill health. Clearly it is impossible for management to provide the opportunities for the treatment of major emotional illnesses when the individual is on the job. It is, however, the duty of management to recognize sources of emotional reactions due to the total situation prevailing in the office or workshop. This is important for two reasons: First, present-day workers often require considerable time in supervision in training, and loss of time, therefore, involves both direct and indirect expense. Second, scientific studies have shown that there is a very close relationship between the morale of workers and their output.

Of prime importance is the question of attitudes in which we include the prejudices and opinions of individuals and their reactions, not only to their superiors but also to their equals and inferiors in the formal table of organization within an industry. For example, the difference in approach to a particular problem by management, on the one hand, and labor, on the other, is so common as to be accepted as normal. Management identifies with the general aims of the company, while labor often automatically takes a stand in opposition. Clearly it would be to the advantage of everyone if every member of the company would work together and so obtain mutual benefit.

Harmony-Producing Factors

Sometimes the factors producing harmony are very subtle. For example, experiments at the Hawthorne plant of Western Electric brought out many factors of a psychological nature not previously recognized in the industrial setting. You will recall that this investigation began with the aim of improving the physical conditions of the workers with the view essentially of improving production. A certain number of workers were chosen and to them were explained the purposes of the experiment, the first stage of which involved illumination. As the lighting was improved, output increased. Then it was found that even if the lighting were not improved, provided that the girls thought it was being improved, then production increased still more. Finally, even when lighting was reduced, the production output continued

to increase. It was soon realized that the factor involved was not that of physical conditions but the attitude of the employees. Moreover, the level of production of other workers not engaged in the experiment showed improvement, clearly indicating that elements had been introduced into the work situation not directly related to the immediate aims of the experiment.

Further studies have revealed the importance of providing a psychological atmosphere which is conducive to the contentment of workers of every grade. It has been found that in addition to the formal table of organization, there also usually exists an informal or social table of organization which is largely independent of management. Within an office or shop, groups form automatically and the members develop close emotional ties. Often one member will become the leader of the group. If members of the group are individually psychologically frustrated, the frustration becomes verbalized in hostility to the management, and output invariably falls. If on the other hand the psychological milieu is favorable, the members of the group are content and direct their activities to the job. Moreover, where there is a general attitude unfavorable to management, a single discontented person is likely to mobilize the feelings of the others and to direct them toward hostility to the aims of the company. When employees themselves feel contented, they tend to oppose a discontented fellow worker. This may seem a simple psychological fact, but it was not recognized for a long time. The introduction of rest pauses, the provision of opportunities to discuss grievances and to make suggestions, and the development of recreational facilities outside business hours have been important steps forward. At first these were regarded with suspicion as steps deviously intended by management solely for the gain of the company. Enlightened management and the success of these provisions introduced great benefits for workers.

Management Interest and Group Feelings

The psychological benefits from such innovations have been derived from two sources. The first that the management is interested in the welfare of the individual and is not trying to use manipulation and exploitation; the second that these innovations give an opportunity for the formation of group feelings by which individuals become related to each other on an emotional basis with consequent lowering of tensions. Within any organization or any department of an organization, there is always the strong possibility of the development of tensions which are related indirectly to the immediate situation. Modern education combined with advances in the field of communication have accentuated natural rivalry between individuals. Any individual in the course of his relationships must deal with others who occupy levels of status, and the methods by which he relates to them varies considerably according to the authority carried by the other persons.

As we grow and develop, our relationships with authority figures in our lives, from infancy onwards, undergo many modifications. Nevertheless as adults we still tend to relate with those in authority as an inferior would relate to a superior, whereas with somebody on an equal level the emotional interplay is quite different. In order to build a really cooperative organization, the understanding of these factors is essential. Moreover, it is important that management should not wait until forced to grant concessions because the psychological impact of what is granted is thereby lost. It is the difference between the worker having to fight for his rights and management doing its best for the welfare of the worker. Clearly I do not imply that management must be constantly increasing wages as a means of making workers content. In fact, all investigations have shown that the satisfaction of employees is largely derived from factors other than those of pay. A number of surveys have produced definite significant results which suggest that the needs of the individual are based on emotional satisfactions. For example, a recent investigation by the Psychology Department of the University of Michigan at the Prudential Life Insurance Company revealed most interesting findings. Employees were asked to rate eight factors of reward. Top executives forecast that the employees would place salary first and security second. Much to the surprise of the latter, the vote was as follows:

1. Credit for work well done
2. Interesting work
3. Personally accepted supervisors
4. Variety
5. Freedom
6. Good hours
7. Satisfactory earnings
8. Security

From a psychological viewpoint it may be quite significant that those who had reached the top were, in fact, themselves particularly concerned about salary and security. Most investigations along psychological lines show that when pay is considered, the average individual treats it relatively—in reference to comparable rates of pay with others doing the same sort of work and pay rates in the comparable industries. Although many labor problems appear to be primarily concerned with demands for increased pay, yet basically these demands merely represent frustration in less obvious ways.

Proper Placement Essential to Contentment

The psychologists have contributed much in developing techniques and tests to evaluate the abilities and interests of individuals and to utilize the results in placing the employee in the position in which he will obtain the most satisfaction. The importance of this on a long range scale can be seen in the so-called Birmingham Experiment in England in which children about to leave school were tested as to intelligence and abilities and were advised as to the types of job into which they should go. The follow-up, years later, indicated that those who had accepted the recommendations were, on the whole, relatively happy and contented individuals irrespective of the monetary reward they were receiving. On the other hand, those who did not accept the recommendations often had had histories of changing jobs, of absenteeism, and frequently of emotional instability. Moreover, on average, those who had accepted the recommendations were in receipt of bigger weekly pay checks than those who had not.

The Role of the Psychiatrist

Since the question of attitudes is so important in the development of morale, and since good morale is so important in a successful organization, it may be asked what role does the psychiatrist play in industry? Many people when discussing these problems will say that the points mentioned are merely those of common sense and that any good executive is aware of them and acts accordingly. However, this is doubtful. It is perfectly true that many executives do so, but it is to be realized that members of management themselves carry with them their own attitudes, prejudices and opinions. The role of the psychiatrist is essentially that of consultant and advisor. It is his

place to educate others in problems of attitudes and of interpersonal relationships. For example, a man is often chosen as a first-line supervisor because of a previous record of good work, both in output and attendance. Yet this does not necessarily mean that the individual possesses the abilities of a supervisor; but even if he does not, such a man can be taught how to become a leader and how to obtain the cooperation of those working with him. The psychiatrist can make him aware of the importance of attitudes both of the workers and of himself.

The importance of explaining to those with whom one works the reasons why certain decisions are made is, in fact, a psychological mechanism designed to have others identify with one's aims. The importance of democratic leadership can not be over-estimated. By this the supervisor does not lose status; on the contrary, he gains. Listening to the suggestions of others and encouraging others to contribute to the solution of current problems makes all the employees part of the project. Such a leader must naturally know the job better than those he supervises, but he must also realize that it is more important for him to understand the emotional attitudes of those working with him than for them to understand his. Such a supervisor, by his friendliness, by his fairness in dealing with others, provides a psychologically contented atmosphere. In this situation he is more likely to have the sources of dissatisfaction brought to his attention earlier so that these may be eradicated if necessary.

Importance of Recognition

It is important for anyone in a supervisory job, at any level, to realize that public reprimand or condemnation is shattering to the ego of another; that a "my God attitude" produces dismay and insecurity in another and invariably hostility to the person and all he represents. The importance of allowing a person who has made a mistake to save face cannot be overestimated, for it is to be presumed that such an error was not made intentionally and would be avoided in the future. Moreover, there is no one who does not want to be recognized and accepted as an individual in his own right. An appropriate word of praise can only help; it can never harm another's ego and this is particularly true when the praise relates to success in a job. Pride in one's work and of one's associates is a prime motivation in working. Yet it is impossible to distinguish between satisfaction in the group and satisfaction of purely personal origin.

In the higher levels of management, it may be thought that such considerations are of less importance. However, this is far from the truth. It is the function of management to provide leadership, delegation, coordination, control, supervision, and public relationships not only with those immediately outside the organization but also with those working within it. It is particularly true that the responsibility lies with management to determine the type of supervisor and the type of training on a supervisory level. Likewise, at the top there starts the encouragement of attitudes good and bad which are transmitted down through the line. Bad relationships between those at the top level almost invariably result in bad relationships between the departments working under them. Poor relationships between a superior and an immediate subordinate is likely to be transmitted between the second to the third line and so on. Again it should be realized that we all rationalize or try to justify by reasoning the views which we hold, and many times the views which we hold have been the result of long past experiences, views which are, in fact, no longer justifiable in a present situation. So, we often do not recognize that the attitudes taken by others may be the natural psychological result of our own erroneous way of handling problems. In this area a psychiatrist with a knowledge of office or industry can be most helpful.

Some industries provide counsellors who are not part of management nor are they part of the body of employees. They enable individuals to talk out their difficulties and often the talking out in itself will eliminate the grievances. Such counsellors are able to help both supervisors and supervised to recognize the areas in which they must come together. They can give advice about the suitability of an individual for a given job. Their most important function is to provide the means for the development of good interpersonal relationships within the office or workshop.

In the "good ol' days" when companies tended to be owned by a single man, who himself supervised the work and so on, many of the problems of modern industry did not exist. Such an employer often knew all his men by their first names, invariably greeted them when he met them, and probably knew all their personal problems independent of the work situation. The tendency was for the workers to identify with the employer and to provide their maximum cooperation. As industry enlarged, there was disruption of this pattern and with it came the development of an anti-employer attitude. Yet viewing the situation psychologically, we know now that all the psychological benefits of the old system can be developed in the new if we can teach the importance of regarding others as whole individuals in their own right.

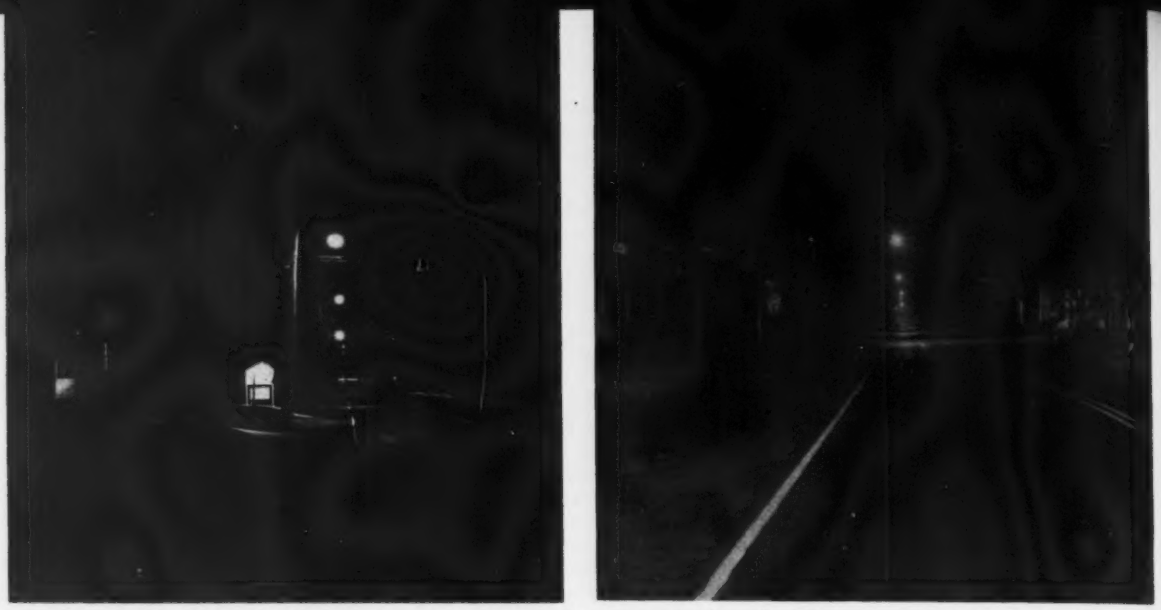
Emotional Supports Needed

As indicated by the Hawthorne Experiment, policies which are employee oriented produced desirable results; loyalty comes from within the individual and cannot be produced through propaganda. The employee develops pride in his own group and in the organization as a whole, and the feeling of well-being characterizes the individual not only in his work but also in his home and in his social relationship with others.

The importance of the interdependency between individuals in a firm is sometimes brought out very specifically to the psychiatrist. We will find a man who throughout his life strives to achieve success and advances in his profession until, that is, he reaches the top. For some men, however, success then brings not happiness but emotional disorder. Examination of such individuals reveals a number of psychological factors, not least of which is the need to strive for a future goal and at the same time to have the support and even protection in the form of responsibility shared by a superior. To be alone on top of the pile precipitates the individual into a situation in which he is deprived of necessary emotional supports with the result that he may develop emotional illness.

I believe that in the future industry must turn its eyes in the direction of research in the psychological field. There are probably more opportunities in this area for contributing to the benefit of industry than have been available in other areas in which great sums of money has been spent. There is an old adage of "The right man in the right place at the right time;" but it is often more by trial and error than by a scientific approach that the selection is made.

(Continued on page 42)



MODERN LIGHTING makes this part of the Boston Post Road in Clinton bright and safe in contrast to the ineffective lighting shown on the right.

More Light, Greater Safety In Clinton

WHAT has been done in Clinton to improve highway lighting and the safety of pedestrians and night drivers is an example of an ideal safety goal for many of our towns and cities and for the factory grounds and roads around some manufacturing plants in the state.

THE small town of Clinton along the Connecticut shore has recently installed one of the most modern highway lighting systems in the state along part of the Boston Post Road which runs through the town. In fact, it is the only small town in Connecticut to make such extensive use of mercury vapor lighting.

The introduction of mercury vapor lighting in Clinton has resulted in a more than tenfold increase in light along the Post Road at night, an increase that was so much needed in the community that the state agreed to cooperate in the installation of the lighting. The increased light improves visibility, and it is expected that this will reduce night time accidents by half.

At a ceremony on the town green last fall, the first selectman threw the switch, turning on the first section of the new lighting system which consist of thirty-three 20,000 lumen mercury lighting units extending along Route 1, from Grove Street through the center of town beyond the junction of Beach Park Road.

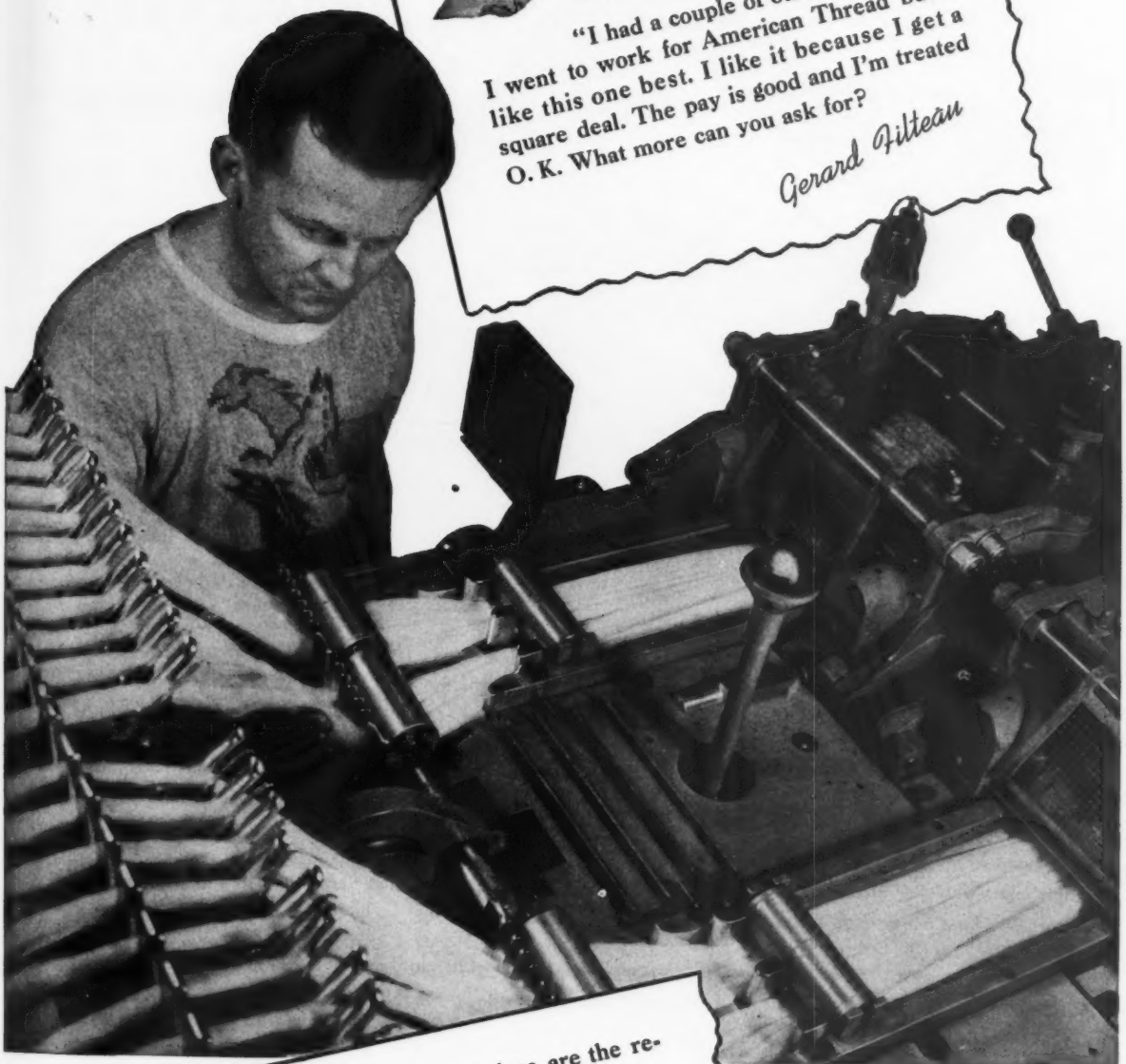
The new installations are the result of a number of surveys requested by the Clinton Board of Selectmen and the Clinton Safety Council and made by the State of Connecticut and The Connecticut Light and Power Company and its subsidiary, The Clinton Electric Light and Power Company. The aim was to improve the poor highway lighting along Route 1 in Clinton so that the highway would be safer for the heavy traffic traveling over it and accidents reduced. The first lighting plan was presented January, 1953. The final plan, voted upon at a town meeting in June, authorized the town to install mercury vapor lights from Grove Street to Indian River Bridge, while the state would install the lights from Stanton Road to Beach Park Road.

The new lights include the latest engineering improvements. Units of 20,000 lumen mercury vapor type are extended on 8, 12, 16 and 20 foot brackets to bring the light source the correct distance over the roadway. The new luminaires are mounted 30 feet from the road surface in contrast with a height of 16 to 24 feet for the old, a change which increases light distribution and reduces veiling glare. The lights are supplied from secondary circuits and operated by a multiple pilot wire system, controlled by a single photo-electric cell.

Mercury vapor lighting has the advantage of high light output in relation to the electricity used and thus in relation to operating costs. Specifically, a mercury vapor lamp will give two and one-half times more light than an incandescent lamp using approximately the same amount of electricity.

As an added safety factor the new system has been engineered to turn on the lighting system automatically in the event of any mechanical failure to the automatic switch or pilot wire system.

The Clinton Electric Light and Power Company carried out a major construction job before the lighting units could be installed. The overhead distribution system in the area was completely rebuilt and rearranged.



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Gerard Filteau

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Another Opportunity for Connecticut's Industries . .

A new door is open to YOU!

Another door is open to Connecticut manufacturers. The demand for low weight plastic products is rapidly increasing because of their versatility in application. And Connecticut is well suited for producing them!

Manufacturers now making plastic products might consider expanding that part of their business. In addition, industrialists who wish to diversify operations should also investigate the plastics field. It's a new and profitable opportunity for Connecticut's industries.

For example, the Dow Chemical Company is now producing Styron at its plant in Gales Ferry, Connecticut. Many products are molded from this plastic, and the nearby source provides a reliable supply of Styron for Connecticut manufacturers.

The Industrial Power Consultant from your Connecticut Electric Utility Company will put you in touch with opportunities in the plastics industry.

THE CONNECTICUT LIGHT AND POWER COMPANY

THE CONNECTICUT POWER COMPANY

THE HARTFORD ELECTRIC LIGHT COMPANY

THE UNITED ILLUMINATING COMPANY

NEWS FORUM

This department includes a digest of news and comment about Connecticut Industry of interest to management and others desiring to follow industrial news and trends.

A MANUFACTURING PLANT which will be leased to the Talco Engineering Company, Inc., Hamden, is now under construction at 2685 State Street, Hamden. The building is being erected by the Valentine Realty Company, which will lease the structure to Talco for a period of five years.

The plant will include general offices, electronics area and an engineering drafting room. A one-story addition at the rear will house manufacturing and testing. The property covers about three acres, part of which will be used as a parking area.

★ ★ ★

PHILIP B. WATSON, works manager at the American Cyanamid Co. plant in Wallingford, recently celebrated his thirtieth anniversary with Cyanamid.

On July 1, 1941, Mr. Watson took over as works manager of the newly opened Wallingford plant. Prior to that he had been manager of the company's plant at Bound Brook New Jersey.

Mr. Watson was graduated from Massachusetts Institute of Technology in 1917 and served in the Army's chemical warfare division during World War I. He was associated with the Union Carbide Co. prior to joining American Cyanamid in 1924.

In Wallingford Mr. Watson manages the largest plant of its kind in the world. The firm's molding power plant turns out melamine-formaldehyde and urea-formaldehyde thermosetting molding compounds.

Mr. Watson is president of the Wallingford YMCA and the Meriden Manufacturers Association, a director of the Manufacturers Association of Connecticut, and is an advisory member of the board of New Haven College.

HARRY A. LEIGH, formerly executive vice president of the Seymour Manufacturing Company, Seymour, died recently in St. Petersburg, Florida.

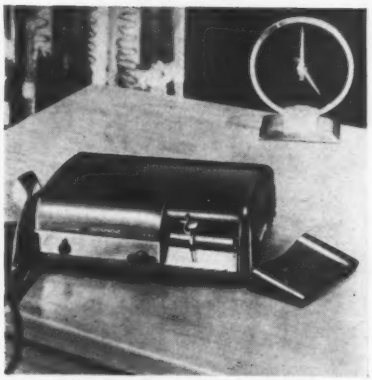
Mr. Leigh joined Seymour in 1913. He was also a director of the company and was prominent in related business and industrial fields.

★ ★ ★

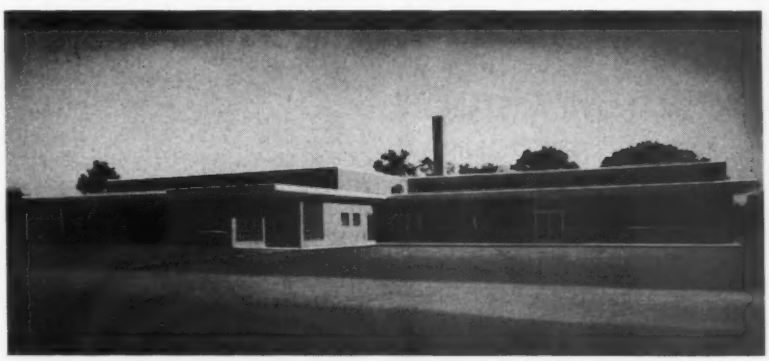
JOSEPH T. FOERTH, of Fairfield, who started as an office boy in 1912, has been promoted to vice president of the Bassick Co., Bridgeport.

A native of New York City, Mr. Foerth attended the City College of New York. He is president of the Algonquin Club, a regional vice president and national director of the Controllers Institute of America, and past president of both the Bridgeport Association of Credit Men and the Bridgeport Tax Forum.

The Cover



THIS MONTH'S cover is a photo of the "Dictaphone" Time-Master dictating machine and the Dictabelt. The story of The Dictaphone Corporation is told in this issue starting on page 6.



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and
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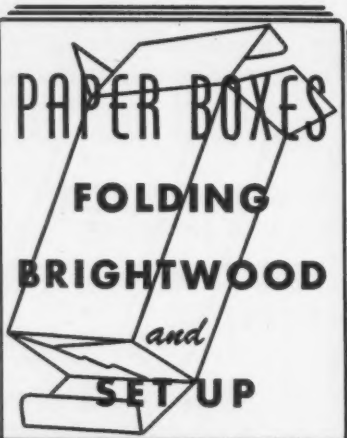

H. J. MILLS, INC.
ESTABLISHED 1887
BRISTOL CONNECTICUT

THE BRIDGEPORT HYDRAULIC COMPANY has recently launched a $2,000,000 expansion project which will continue for the next two years to improve and extend water facilities and service to meet the increasing demands for water by industrial and home consumers.

Included in the company's three-fold program are an extension of 48-inch pipe from Hemlocks reservoir, the addition of other pipelines in several sections of Bridgeport and Stratford, the reclamation of old pipe now in use and the drilling of new wells to increase the available water supply to the area.

★ ★ ★

EARL D. CANFIELD, president of the Sight Light Corporation, Deep River, has been awarded the Navy's highest civilian decoration, the Distinguished Public Service Award.

In his capacity as a member of the Ordnance Advisory Committee of the National Security Industrial Association, Mr. Canfield, at his own expense and time, devoted six months in 1953 to work out the solution of the complicated problems that were retarding manufacture and production of the "Mighty Mouse" 2.75 MM folding fin Navy rocket for the Navy Bureau of Ordnance.

★ ★ ★

THE MB MANUFACTURING COMPANY, New Haven, has been purchased by Textron, Inc., it has been announced by Royal Little, chairman of the board of Textron.

Founded and directed by two New Haven natives, George and Rollin Mettler, the MB Manufacturing Company is said to be the only firm in the United States which covers the entire range of vibration control. It produces vibration equipment for military and civilian planes and ships, for guided missiles and other defense weapons, and for passenger cars, trucks, tractors, air conditioning units, industrial machinery, building construction and other civilian uses.

The firm, which was founded in 1938 with only a dozen employees, now employs 700 workers. George Mettler, vice president of MB, revealed that the sale to Textron involves no changes beyond the transfer of ownership. The management will remain the same.

The purchase of the MB Manufacturing Company is part of Textron's

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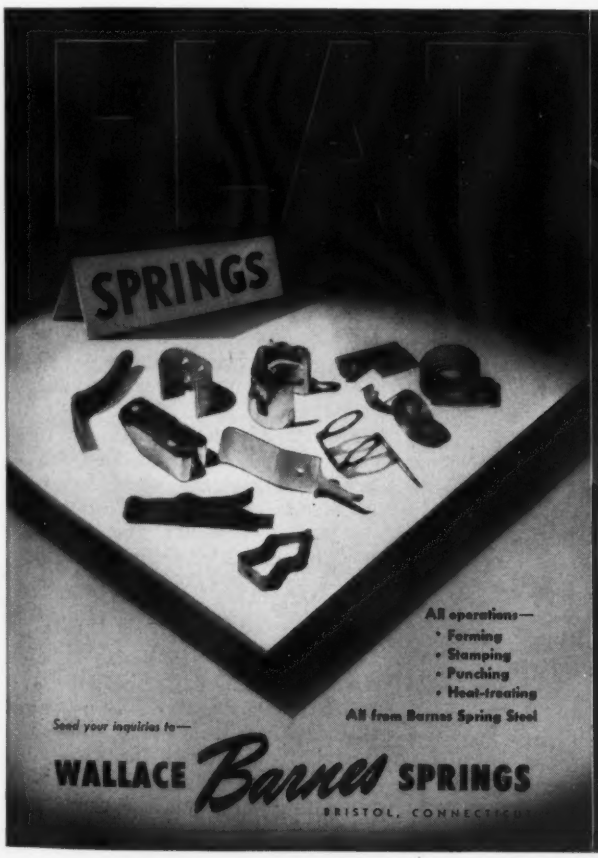
★ ★ ★

A LARGE, valuable collection of early American locks, including many that were used by some of the first settlers of this country, has been acquired from Mrs. Theodore L. Bailey of Harriman, New York, by The Yale & Towne Manufacturing Company, it has been announced by Gilbert W. Chapman, president.

The company's first public exhibit of substantial portions of the Gillian W. B. Bailey collection of early American locks took place at the 10th annual National Antiques Show, held in Madison Square Garden, New York last month.

In the collection are more than 250 locks and latches, ranging from small wooden devices made by early settlers to mammoth prison locks used in New England when George Washington was President, approximately 250 keys,

MRS. THEODORE L. BAILEY shows Gilbert W. Chapman, president of The Yale & Towne Manufacturing Company, a 250-year-old wooden lock with odd metal key, built by an early American farmer for his barn. The lock is part of the Gillian W. B. Bailey Collection of several hundred early American locks just acquired by Yale & Towne.



old padlocks of various design, size, and complexity; and an additional group of foreign locks, padlocks and hardware from all parts of the world, including a Thirteenth Century Central European slave leg lock.

A special feature of the collection are the tools, artifacts and equipment of an early American blacksmith's shop, as well as those used in the shops of early locksmiths, when their craft acquired a status of its own.

★ ★ ★

FIFTEEN YEARS of progress in the development and manufacture of gummed tape and pressure sensitive tape dispensers was celebrated at the AMA National Packaging Exposition in Atlantic City in April by Derby Sealers, Inc., Derby. To mark their 15th anniversary the company introduced two low-priced automatic gummed tape dispensers for industrial use.

Smaller than comparable models now on the market, the Derby "15" and "152" are said to offer the user equal performance and capacity as well as a number of new exclusive features that make them more practical and economical. One of the most important features introduced in both models is a spring clutch feed which insures tape length accuracy never before available in standard tape sealers.

★ ★ ★

THE LOCATION of a New York dress factory in Norwich last month is expected to boost the area's annual industrial payroll by a quarter of a million dollars.

Through the efforts of the State Development Commission and the Industrial Foundation of the Norwich Chamber of Commerce, Miss Smart Frocks, manufacturers of dresses, opened its branch plant on May 1.

★ ★ ★

THE DIRECTORS of The Kaman Aircraft Corporation, Bloomfield, have elected three men to new positions as officers of the corporation for the coming year.

Edward J. Odlum, formerly vice president, contracts, has been elected vice president. Mr. Odlum joined Kaman in 1950 as contracts administrator. He also continues as a director of the corporation.

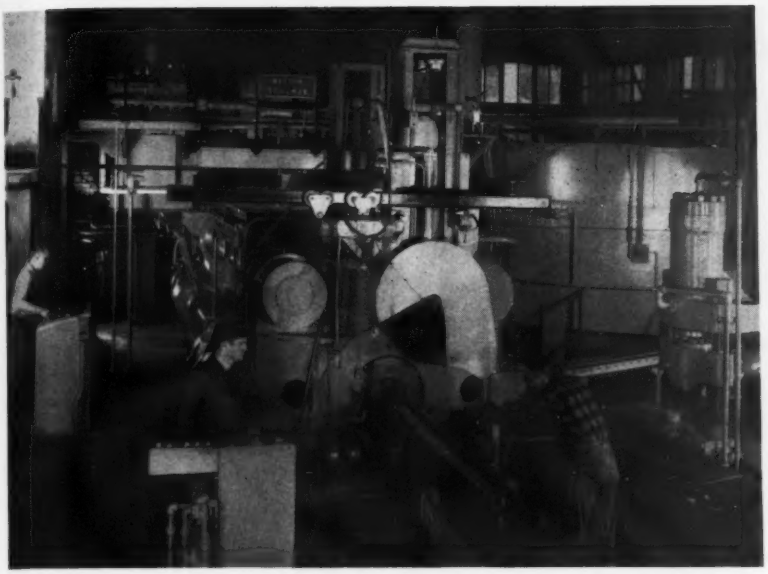
Bruce F. Clark was elected treasurer. Mr. Clark joined the company in 1951 and prior to his election to his new post he served as comptroller and assistant secretary.

Charles Kirchner, assistant to the president was elected assistant secretary. In addition to his new duties as assistant secretary, Mr. Kirchner will continue as assistant to the president handling special administrative assignments, public relations, publicity and advertising.

★ ★ ★

HAROLD J. BARICH has been appointed assistant general sales manager of the Seamless Rubber Company, New Haven, according to an announcement by J. Thomas Gibbons, vice president and general sales manager.

Seamless is the world's largest manu-



AMERICAN BRASS COMPANY'S new horizontal extrusion press has a double action power of 2,300 tons; 1,900 tons pressure on the main ram, and 400 tons on the piercing ram, utilizing hydraulic pressure of 3,000 pounds per square inch.

facturer of surgeon's gloves and rubber sundries. The company makes hospital goods, athletic equipment, industrial tape and rubber specialties.

A native of Chicago, Mr. Barich was graduated from Northwestern University. He was formerly associated with Rexall Drug Company, where he had been administrative assistant to the vice president of the eastern division, with offices in Boston.

★ ★ ★

A NEW, heavy-duty, horizontal extrusion press, recently put into operation in one of The American Brass Company's Waterbury tube mills, has greatly increased production flexibility and capacity for tube stock for drawing seamless tubes.

Tube stock made on the new press is processed by rolling and drawing to finished length and diameter with intermediate anneals. While this production is used primarily for condenser and other heat exchanger tubes, the press is capable of extruding over 30 copper base alloys, including plain and leaded brasses, aluminum brass and bronze, nickel, silver alloys, phosphor bronze alloys, 10%, 20% and 30% cupro-nickels, and Everdur Copper Silicon alloys.

★ ★ ★

PHILIP R. MARSILIUS, vice president of The Producto Machine Co., Bridgeport, and Richard F. Moore, president of Moore Special Tool, Inc., Bridgeport, have been appointed chair-

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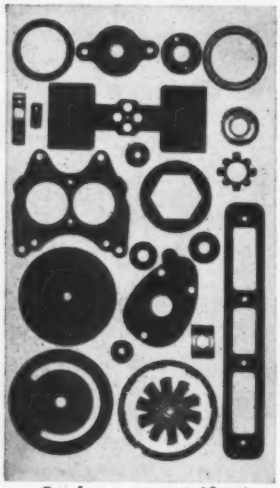

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BI-14

man and vice-chairman, respectively, of committees of the National Tool and Die Manufacturers Association

Mr. Marsilius has been named chairman of the association's public relations committee, and Mr. Moore is the new vice-chairman of the apprenticeship committee. Mr. Marsilius, who is treasurer of the association, will also serve on the finance committee, and Mr. Moore will also be a member of the business conduct committee.

★ ★ ★

JOHN M. BROWN, director of purchases for Veeder-Root, Inc., Hartford, died recently at the Hartford Hospital.

Mr. Brown was a past president of the Purchasing Agents Association of Connecticut, and a former vice president of the National Association o Purchasing Agents.

Raymond I. Bond has been appointed chief buyer of Veeder-Root. He had formerly been assistant to the purchasing agent, and has been an employee of the company since 1942.

★ ★ ★

CALVIN T. HUGHES, vice president of The Connecticut Light and Power Company, Berlin, has been named vice president and consulting engineer for the utility company, reporting to Sherman R. Knapp, president.

In other promotions announced by Mr. Knapp, Eugene B. Ripley, mechanical engineer, was named chief engineer; general engineer Harold M. Kopp was named gas engineer responsible for gas engineering and operations for the entire company; Russell Hicock, transmission and distribution superintendent, became operating superintendent; and engineer John R. Beccia became utilization engineer.

★ ★ ★

THREE EXECUTIVE appointments at Royal Typewriter Co., Inc., Hartford, were announced recently by Carl McKelvy, vice president and factory manager. The appointments were: Alan S. Cook, assistant to the vice president; Gilbert F. Berry, director of industrial relations, and John H. Fairbrother, personnel manager.

Mr. Cook, a graduate of Amherst College, has worked in several plants on engineering assignments. He served with the Navy during World War II and following service returned to Royal as assistant manufacturing supervisor. He was advanced to assistant

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superintendent in 1948 and to director of industrial relations in 1950.

Mr. Berry, a graduate of the University of Connecticut, joined Royal in 1953 as personnel manager.

Mr. Fairbrother, a graduate of Providence College, was recently released from active duty as a lieutenant commander, serving as commanding officer of the U. S. Naval Reserve Training Center, Baton Rouge, Louisiana.

★ ★ ★

RALPH S. HOWE has been advanced from executive vice president to president of the New Britain Machine Co. He succeeds Robert T. Frisbie, who was elected chairman of the executive committee of the board of directors.

Other executive changes are: Julian C. Pease, from vice president to executive vice president, and continuing as general manager of the company's Gridley Machine division; Clarence E. Bachman, from general manager of the products division to vice president in charge of products division; and George G. Wilcox, from manager of the hand tool division to vice president in charge of the division.

★ ★ ★

ANNOUNCEMENT of the appointment of three new vice presidents of Landers, Frary & Clark, New Britain, all connected with its sales department, has been made by Richard L. White, chairman of the board.

The three new vice presidents are: Ralph R. Jugo, vice president in charge of the South American export business; Lee Moss, vice president in charge of vacuum cleaner sales; Stanley G. Fisher, vice president in charge of the electric housewares division.

★ ★ ★

THE APPOINTMENT of Herman A. Gledhill, general superintendent of the Heppenstall Company, Bridgeport, to the post of general manager of the firm's new Indianapolis plant was announced recently.

Mr. Gledhill has been superintendent of the Bridgeport plant since 1944, and is credited with a large role in the development of the production of rolled rings at the plant.

★ ★ ★

HEWITT-ROBINS, INC., Stamford, has announced a new line of rubber products, and plans for expansion of foam rubber manufacture with a newly purchased plant in Fremont, Ohio.

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The company plans to spend $1,500,000 for new buildings and machinery at the Fremont plant, which it purchased from the Fremont Rubber Co. The Fremont company's former line of floor covering materials, new to Hewitt-Robins, will be continued.

★ ★ ★

THE ELECTION of Wilson L. Fenn, II, president of the Fenn Manufacturing Co., Hartford, as chairman of the Connecticut Chapter of the Young Presidents' Organization, has been announced. He succeeds Roland M. Bixler, president, J-B-T Instruments, Inc., New Haven.

★ ★ ★

THE LISTIN-BECKER INSTRUMENT CO., INC., Springdale, has announced that it is furnishing all the gas analysis equipment for the "Nautilus," the Navy's atom-powered submarine.

The company began to work on gas analyzers at the request of the National Foundation for Infantile Paralysis late in 1950. The analyzer is an instrument to measure the carbon dioxide level in the blood. In the normal, healthy human being, the respiratory center of the body keeps the carbon dioxide level regulated. Under anesthetics, or in some diseases like bulbar polio, the level can change dangerously.

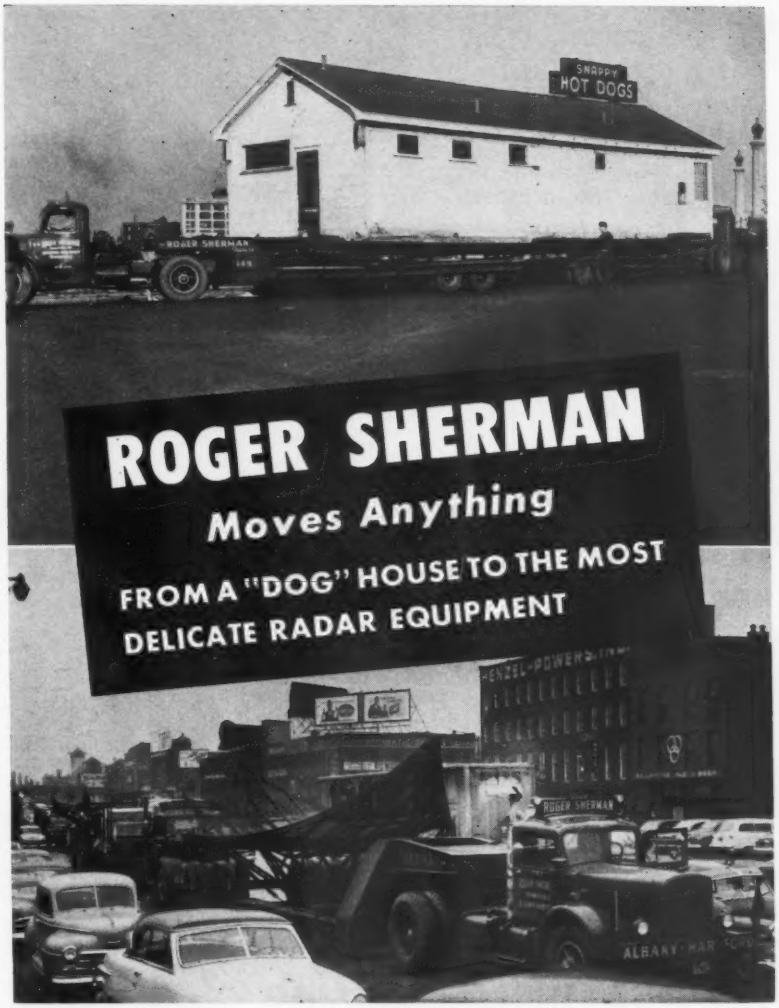
The gas analyzer developed by Listin-Becker permits close observation and the maintenance, as a result of that observation, of safe tolerance levels in the carbon dioxide content of the blood. The National Foundation for Infantile Paralysis has Springdale-made gas analyzers in each of its respirator centers throughout the country.

When the Navy conducted "Operation Hideout" last year, keeping a submarine crew in the submarine for several weeks to observe effects of long periods of submersion, one of the devices employed to study these effects was the company's gas analyzer.

★ ★ ★

ALEXANDER H. d'ARCAMBAL has been elected president of the Niles-Bement-Pond Company, West Hartford, at a recent meeting of the Board of Directors. He has been acting general manager since the sudden death of Frederick U. Conard on March 14.

Charles W. Deeds, former president of the company, was elected chairman of the board of directors.



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MEMBER MANUFACTURERS ASSOCIATION OF CONNECTICUT, INC.

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Richard W. Banfield was named to the newly created position of executive vice president.

Mr. d'Arcambal has been with the company for 35 years, starting as a metallurgist in the Pratt and Whitney Division. In 1927, he was appointed sales manager of the Small Tool and Gage Division and in 1941 he was elected vice president. He assumed the additional responsibilities of general sales manager and was elected a director of N-B-P in 1950.

Mr. Banfield entered the employ of the company in 1935 as a special apprentice. He was appointed assistant secretary in 1937 and was elected secretary in 1943 and secretary-treasurer on the retirement of the late E. L. Morgan in 1945. He was elected a vice president last year and subsequently named manager of the Pratt & Whitney Small Tool and Gage Division, a post which he continues to fill. Mr. Banfield is also a director of the company.

★ ★ ★

THE SALE OF ASSETS, trade marks, inventory, etc. of the Gardiner Hall Jr. Co., South Willington, to the Standard Thread Co. of New York, has recently been announced. The Gardiner Hall Jr. Co. will continue as before, retaining ownership of the factory property and the 39 company houses in the community.

The Standard Thread Co., of which Benjamin Kohen is president, will continue operations of the thread business, established about a century ago.

★ ★ ★

DONALD P. QUINN has been appointed personnel director of the Acme Shear Company, Bridgeport, it has been announced by Henry C. Wheeler, president. Mr. Quinn succeeds the late Michael F. Kane, who held the position for 31 years.

Prior to joining Acme Shear, Mr. Quinn was associated with the Edwards Company of Norwalk, and before that was in charge of recruiting for the Henry J. Kaiser Company, of Portland, Oregon.

★ ★ ★

FORMER MAYOR George W. Hickey, Willimantic, died recently at his home. He was a lifelong resident of the community and until less than

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a year ago was an executive of the Willimantic plant of the American Thread Company. At the time of his retirement he was production manager, and previously served as superintendent of the finishing department.

An active supporter of civic activities, Mr. Hickey served as a member of the town board of education for 25 years, was an alderman-at-large for the city government for three terms prior to becoming the Mayor.

A SCHOOL TEACHER who took a summer job at Rockbestos Products Corporation, New Haven, thirty-five years ago, and has been there ever since, was recently elected president of the Hourglass Club of the company.

Frances Ruth Lynn, referred to by Rockbestos' president, A. G. Newton, as "Miss Rockbestos," is one of five employees who have been with the company since it started thirty-five years ago.

About 250 members of the club, all employees of the company, manufacturers of wire and cable, attended the annual dinner dance and business meeting of the Hourglass Club at the New Haven Lawn Club.

★ ★ ★

RUSSWIN AIR JET is the name of the newest addition to the line of door closers manufactured by the Russell & Erwin Division of the American Hardware Corporation, New Britain.

Designed for use on screen or storm doors, the air-controlled closer is said to feature impact-extruded aluminum construction; long-wearing nylon valve with fingertip adjustment for slow or quick-opening speeds; a dependable, simple hold-open device; concealed buffer spring; self-lubrication precision parts; and weather-resistant finish.

★ ★ ★

FRANK R. BALL, vice president and treasurer of Revere Corporation of America, Wallingford, has been elected to the board of directors of Neptune Meter Co., manufacturer of liquid meters.

D. E. Broggi, president of Neptune, which acquired outstanding stock of Revere Corporation in January, announced Mr. Ball's election.

Mr. Ball, a co-founder of Revere in 1940, joins his brother Thomas Ball, Jr., president and general manager of Revere, on the Neptune board of directors.

★ ★ ★

THE CRO-PLATE COMPANY, INC., Hartford, has announced the publication of a new fully illustrated six-page booklet describing in detail their regular velocity and high velocity pressure blasting process and its applications in the field of deburring, cleaning, scale removal, etc. Also described is the full range of available manual and automatic units.

★ ★ ★

THE AMERICAN PAPER GOODS COMPANY, Kensington, and other manufacturers of paper cups and food containers, have been selected by the Freedoms Foundation at Valley Forge, Pennsylvania to receive its George Washington Gold Medal and a cash award for its stockpiling program.

In making the award, the distinguished National Awards Jury, composed of state supreme court jurists

Aircraft Worker Honored as 750,000th Member of Connecticut Medical Service

Charles P. Chambers of South Coventry was presented with a certificate and a $100 U. S. Savings Bond recently, as the surgical-medical plan celebrated its fifth anniversary. Chambers, a jet engine tester at Pratt & Whitney Division, was one of over 90,000 employees and family members enrolled in CMS through United Aircraft plants.

Charles Chambers, shown here with his wife and two of his three children, is typical of thousands of persons employed in Connecticut industry and business, who have greater peace of mind through CMS protection. He knows that his CMS membership will cover surgical and in-hospital medical care not only for himself, but for every member of his family, as well.

The Blue Shield Plan CMS for Connecticut

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and executive officers of national patriotic veterans organizations and service clubs, described the paper cup industry's program as "An outstanding achievement in helping to bring about a better understanding of the American Way of Life during 1953."

The program, developed by the industry's association, the Paper Cup and Container Institute, in cooperation with Civil Defense and Red Cross authorities, included the establishment, at the industry's expense, of stockpiles of twenty-five million paper cups, dishes and food containers in twenty strategic locations in the United States, for emergency disaster use by public agencies. Another phase of the project was a broad educational campaign by the industry to alert the American people to the need for civil preparedness.

Albert S. Redway, president of the Kensington firm, said, "All of us at our company can be proud of the contribution our industry has made to the urgent matter of civil defense. . . . If I could, I would personally congratulate every man and woman in our company for their help in making this award to the industry possible."

The award-winning program was started in 1950 when the Korean conflict threatened to spread, according to Mr. Redway. As a supplier of products essential to national defense, the industry investigated the demands which might be made on the industry in case of a bombing attack on the United States. It was evident that there would be immediate problems of emergency feeding. The homeless, injured, Civil Defense workers, would require prompt service of food, liquids and medicines, often in areas where the water supply would be limited, contaminated, or non-existent. Specialists in emergency feeding say paper solves most of these problems because it is easy to transport, assures sanitary food service, and can be used under emergency conditions where other facilities would not be available.

★ ★ ★

AT ITS ANNUAL MEETING, the Skinner Chuck Company and Skinner Valve Division announced the election of President Arthur E. Thornton as chairman of the board of directors. Paul K. Rogers, Jr., vice president, succeeds Mr. Thornton as president of the company.

Mr. Thornton has been with the company for thirty-nine years. He was

PAUL K. ROGERS

made a director in 1931, a vice president in 1936 and president in 1938.

Mr. Rogers was also re-elected treasurer and a director. Before joining Skinner, Mr. Rogers served with Jones & Lamson Machine Company and South Bend Lathe Works.

Mr. Sherrod E. Skinner was elected a director of the company to fill the vacancy left by his father, E. J. Skinner, former chairman of the board,who died in 1953. Mr. Skinner is also a vice president and director of General Motors.

Robert D. Twohig was appointed assistant secretary and controller of the company.

★ ★ ★

MORE THAN 100 mathematics and physics students, chiefly seniors, from ten high schools and private schools of the greater Hartford area, toured the plant of Hamilton Standard, division of United Aircraft Corporation, Windsor Locks, recently.

The students heard a talk on "Engineering as a Career" by James S. Sims, Jr., an assistant project engineer at Hamilton Standard, saw "Power to Fly," a United Aircraft Corporation movie, and dined in the company cafeteria prior to touring the production line.

Elliot Dodge, principal of Simsbury High School, was coordinator of the tour.

★ ★ ★

ALLAN L. BURTON has joined Veeder-Root, Inc., manufacturers of counters and computing devices, to carry out market research and elec-

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tronic development work with the company, it was announced recently by Harvey L. Spaunburg, president.

Mr. Burton was formerly associated with Radio Corporation of America, where he specialized in new product administration. Before that he was with the American Optical Company, and had been manager of industrial sales for Tracerlab, Incorporated.

★ ★ ★

AT THE RECENT annual meeting of the Holo-Krome Screw Corporation, Hartford, W. C. Stauble, president, announced two important promotions at the executive level.

Richard A. Modig, who joined Holo-Krome in 1935 as a salesman in the New England territory, and who was made general sales manager in 1953, was promoted to vice president in charge of sales.

William J. Basile, who has been with the corporation since 1943, after several years with federal departments, including the U. S. Treasury, was advanced from assistant treasurer to treasurer. Mr. Stauble had been serving as president and treasurer.

★ ★ ★

THREAD REPAIR BULLETIN No. 692, directed primarily toward fleet owners and their maintenance personnel, has recently been published by Heli-Coil Corporation, Danbury.

The bulletin shows how worn or stripped threads can be repaired quickly and permanently with Heli-Coil screw thread inserts. Details of repairing threads in several automotive parts are covered in the bulletin which contains a report of actual experience at Danbury Bus Company, Danbury.

On the back cover is a photo and description of the new automotive thread repair kit recently introduced by Heli-Coil. The kit is shown with its cover open and the inserts, four sizes selected for maximum usefulness to automotive mechanics, and tools exposed.

★ ★ ★

AS A RESULT of the overwhelming response to the Amcam "Tap-Holeder" which was recently released after two years of engineering and development, the American Cam Company, Hartford, has now made the through hole design available in an adjustable tap holder.

In addition to the advantages of having the hole all the way through, rather

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than blind, as in conventional tap holders, the new item provides full adjustability over a total of one-fourth inch.

Another feature of this new design, according to the maker, is the elimination of binding of the actuating mechanism. The shaft contains no working parts to be affected or permanently damaged by excessive tightening of the turret locking bolt, as is the case with conventional holders.

★ ★ ★

MORE THAN 800 PERSONS, including families of employees of Thermal Harness Co., Meriden, and its affiliated firms, recently attended "Family Day" at the company's new plant.

Host for the day was Russell H. Anfinson, assistant general manager of Thermal Harness and its affiliates, Electronic Signal and Instrument Co. and Superior American Fire Alarm Co.

Signs throughout the plant indicated the operations under way, from the delicate assembly of special thermal harness cables braided with glass fiber and stainless steel, to the float switches used to measure flow of fuel in giant aircraft.

Present during the afternoon were Frank Ball, Jr., president and general manager of Revere Corporation of America and the three Meriden firms, and Frank H. Ball, vice president and treasurer.

★ ★ ★

RALPH T. BENEDICT, vice president of the Waterbury branch of The American Brass Company, has recently completed fifty years of continuous service with the American Brass and its predecessors. Coincidental with the reaching of this milestone, the Waterbury branch, under Mr. Benedict's direction, moved into its new office quarters in Waterbury.

Mr. Benedict entered the employ of the Benedict & Burnham Manufacturing Co. in 1904 as a factory worker. Benedict & Burnham was one of a group of several companies that combined in 1899 to form the American Brass Co. He was made manager of the Waterbury branch in 1924 and assumed the same responsibilities when the Torrington and Waterbury staffs were combined in 1933. In 1944 he became general manager of both branches. In 1946 he became vice president of the Waterbury branch.

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EMIL JOHNSON, vice president of the Connecticut Manufacturing Company, Waterbury, has been awarded the National Screw Machine Products Association gold micrometer in recognition of 40 years in the screw machine products industry.

He has been with the company since 1935. Before that he was associated with the Steel & Johnson Mfg. Co.

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RESEARCH AND DEVELOPMENT by The Ames Laboratories, Inc., South Norwalk, has resulted in the synthesis of a new substance which chemically prevents skin formation in printing inks and silk screen enamels.

Called INK-SAV, the new product will, according to the developer, prevent skin formation both in partly filled cans left for storage and on ink remaining in the press fountain. It is colorless and volatile, evaporating when the ink is used, leaving no residue. Other features are: INK-SAV chemically combines with driers; contains no wax; will not interfere with the color or drying rate of ink; and will not harm rubber or composition rollers.

The use of INK-SAV minimizes preparation and clean-up time, and permits ink to be kept skin-free and lump-free in partly filled cans indefinitely, or in the press fountain for one to three days without skinning. It is applied by either spraying on the ink surface, or by mixing with left-over inks.

★ ★ ★

SAMUEL BOTWINIK, president of Botwinik Brothers, Hamden and Worcester, Mass., died recently after a short illness.

He was also a director of Pyrene Inc., a director of the General Industrial Bank, and of the National Pipe Bending Company, all in New Haven.

Mr. Botwinik was also very active in community affairs, having been an original appointee to the Board of Finance under the administration of former Mayor William C. Celantano. He served as a Republican member of the board for six years until his resignation in 1952. He also served as Industrial Division Chairman of the Community Chest, and a member of the United Fund Drive. For many years he was a member of the board of directors of B'nai Jacob Synagogue.

He is survived by his wife, two children and four grandchildren.

★ ★ ★

A LEASE for a 97,000-square foot building to be constructed in South Windsor has been signed by Pratt & Whitney Aircraft. The leasing arrangements have been approved by the Air Force and the Atomic Energy Commission.

According to General Manager William P. Gwinn, the facility will be an

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CAROL LYTTLE

expansion of the company's present facilities for work on development of an atomic energy aircraft engine.

Mr. Gwinn said that no work which would create radiation hazard to human or animal life or to vegetation is involved at either the new or the present facility.

CAROL LYTTLE has beeen elected vice president in charge of sales of Dictaphone Corporation, it has been announced by C. King Woodbridge, chairman of the board. Mr. Lyttle has been associated with Dictaphone Corporation since 1920, most recently as New York district manager.

He assumes the position left vacant by the recent appointment of Lloyd M. Powell as president. An alumnus of Amherst and New York University, he is also a past president of the Executives Association of Greater New York, a director of the International Executives Association, a member of the National Office Management Association, the American Public Welfare Association, and is an Advisory Committee member of the New York City Board of Education.

Psychiatry and its Role in Industry

(Continued from page 21)

I would recommend a periodic examination of one's beliefs about, and reactions to, other people and about the views which they hold. In your relationships, I would recommend thinking of others as human beings, irrespective of their particular posts. One of the primary needs to be gratified is credit for a job well done. Most individuals like to feel that they are recognized as part of an organization and not just one of a crowd. Therefore, a little time spent with each member of the office in an informal way helps the employee to feel that he is part of a team. The avoidance of favoritism, a most difficult task for those who have set high standards for themselves, is of prime importance. A task requiring a solution involving work by employees offers the opportunity to take them into consultation on the problem and to allow them to help solve the problem. This gives a feeling of responsibility to them and helps them feel that they are actively participating in the running of the office. In a position of management, one need never be afraid that one will lose respect for being human. On the contrary, the most successful organization is that run by human beings.

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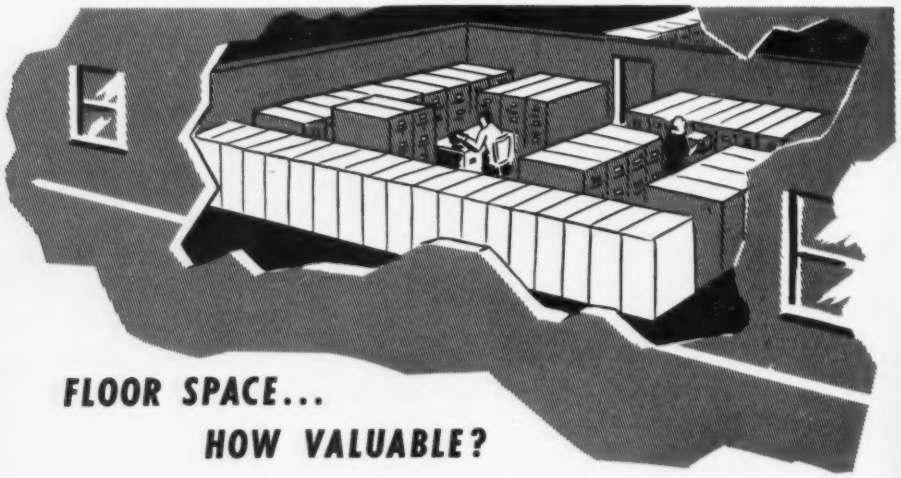

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INDUSTRIAL
Relations — Law

By FREDRICK H. WATERHOUSE
Counsel

WHETHER employers would be responsible under the Connecticut Workmen's Compensation Act for injuries occurring to employees while using parking lots furnished by the employer has been a doubtful question until recently. The Connecticut Supreme Court has now rendered a decision in which it has affirmed the award of a Commissioner establishing such responsibility.

For many years, actually for over twenty-five years, the employer had consented and acquiesced in the use by its employees of a tract of land which had been used as a cinder dump and then as a parking lot. At one time the company, learning that nails and other sharp objects had worked up to the surface of the ground of the parking lot, had the entire surface paved. It also had a watchman supervising the lot during the war and installed lights to illuminate the lot and the adjacent area. White lines had been painted from time to time to indicate the driveways and parking areas and the employer had also had the snow removed during the winter seasons.

The employee had driven his car to the lot for many years and walked from there to his work in the employer's shop. Between 250 and 300 cars of employees were parked daily in the lot. On this particular occasion the employee had parked his car and walked 10 or 15 steps toward a gatehouse on a bridge, to which he was required to report for work, when he slipped and fell on a slippery patch of snow or ice and was injured.

The Commissioner decided that since the lot was maintained for the mutual benefit of the employer and its employees to provide a ready means of access to the plant and a ready means of parking the employees' automobiles close to the plant, the employee had entered upon the employer's premises in accordance with the terms of his employment contract and the injury, therefore, arose out of and in the course of his employment as required by law.

The company contended that the employee was on his own at the time and doing something for his sole individual benefit in which the employer had no interest whatsoever.

However, the court agreed with the employee and stated that employment may exist before actual work begins or continues after actual work has ceased. It stated that "An employer may by his dealings with an employee or employees annex to the actual performance of the work, as an incident of the employment, the going to or departure from the work. To do this, it is not necessary that the employer authorize the use of a particular means or method, although that element, if present, is important. It is enough that the going to and from work across the employer's property can be reasonably held to be an incident to the employment within the contemplation of the parties because the employer knew that it was customary and acquiesced in it and because it was for his benefit in furthering the employment."

In affirming the Commissioner's award the court remarked "Upon the facts found, it is clear that the accident resulting in the (employee's) injury, which thus occurred in the course of his employment, was a natural and necessary incident or consequence of the employment, or of the conditions under which it was carried on, though not

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foreseen or expected. The essential causal connection appears, therefore, to support the further conclusion that the accidental injury arose out of the employment. And where, as here, benefit to the employer was involved, this is so even though the particular act of the (employee) was merely permitted rather than required."

Although the court to some extent appears to have limited its decision to the particular situation involved, it seems apparent that liability under the Workmen's Compensation Act will be present where the employer supplies a parking area adjacent to or nearby its plant. This would seem particularly true in that great number of cases in which employees are given a designated spot in the area on which to park their cars. Whether this ruling would include injuries while crossing a public highway in going from a furnished parking space to the place of employment is not specifically covered.

Of course, other types of injuries, such as being struck by another employee's car while in the parking lot, would presumably be covered and possibly injuries while getting in and out of the automobile.

This case indicates the desirability of making provisions for such liability when future or other types of facilities or accommodations are made available to employees though not directly connected with their work.

Inadequate Selling

(Continued from page 18)

And a lot of that emphasis could well be laid on keeping the customer sold.

Sales training, it seems to me, should be divided into two parts—getting the order—and keeping the customer sold. After the initial sale is made, the salesman should, on many types of products, keep in touch with the purchaser at intervals to see that everything is going right. He should call on him, phone him, or write to him, expressing interest in the satisfactory service he is getting from his purchase—stating that his company wants their product to do everything claimed for it—and that it stands ready to make good if, for any reason whatever, anything should go wrong.

This is the kind of selling that is adequate—that can open up new possibilities, especially in the competitive market we now face.

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Reporting news about *Connecticut Industry* advertisers and their products.

NICKSON TOOL SALES COMPANY, North Haven, has been appointed exclusive Connecticut representative of the West Point Manufacturing Company, Detroit, Michigan.

The West Point line is described as the most complete line of fixture parts, fixture clamps, toggle clamps and leaf jigs in the United States. The products are now rust proofed with black oxide finish that insures a longer rust proof life and eliminates the build up of plating.

The Nickson Tool Sales Company will maintain a substantial stock of all Wespo products available for immediate delivery. The North Haven firm maintains teletype facilities enabling it to give overnight delivery on standard Universal drill bushings.

From the standpoint of economy and convenience, Nickson customers can now obtain all jig requirements from one supplier at the same time.

★ ★ ★

J. C. CORRIGAN CO., INC., Boston, designers and manufacturers of power driven conveyors and material handling equipment, has recently appointed Griesing Engineering Company, New Haven as its sales representative.

Ray Shimkevich and Thomas Tyrer will be associated with Frank Griesing as sales engineers and will cover the Connecticut and Western Massachusetts territory.

★ ★ ★

JACK WITTSTEIN, New Haven, has recently introduced new tear strip cartons with 3M glass filament "Scotch" tape, which open so easily "a child can do it."

The 3M glass filament "Scotch" tape, which is applied to the inside of the corrugated container at any height desired, easily cuts through the container with bursting strength up to 350 pounds. There is said to be no perforation or scoring to weaken the carton.

According to the manufacturer, mass displays are built quickly and easily with tear strip cartons. When opened, contents are attractively displayed to the consumer's view and for self-service. They will stack solidly and neatly, so that carry-out wagons and traffic will not knock them over.

Other features are, damage to contents of the carton by opening tools is eliminated, saving time and money in the replacement of damaged goods; counter display units with sales impact are easily made; center placement of the tear strip divides containers in half, providing two carry-out trays; the container cover can be left hinged by leaving one side intact, to provide protection for contents; opening tool injuries to personnel are eliminated.

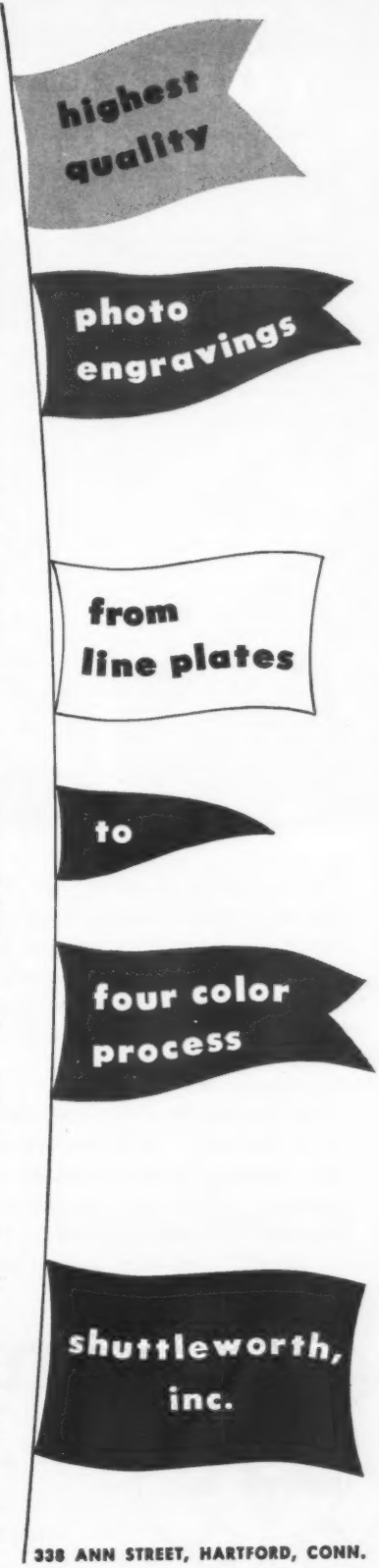
Additional information on tear strip cartons may be had by writing Jack Wittstein, Box 1348, 56 Church Street, New Haven.

★ ★ ★

DONALD R. COOK has been named director of merchandising and sales promotion by Remsen Advertising Agency, Inc., New Haven.

The agency's merchandising facilities have recently been enlarged in response to requests by many clients for expansion of its counselling program, thus creating greater coordination between advertising and sales promotion.

Mr. Cook was formerly sales promotion manager for Spencer, Inc., New Haven.



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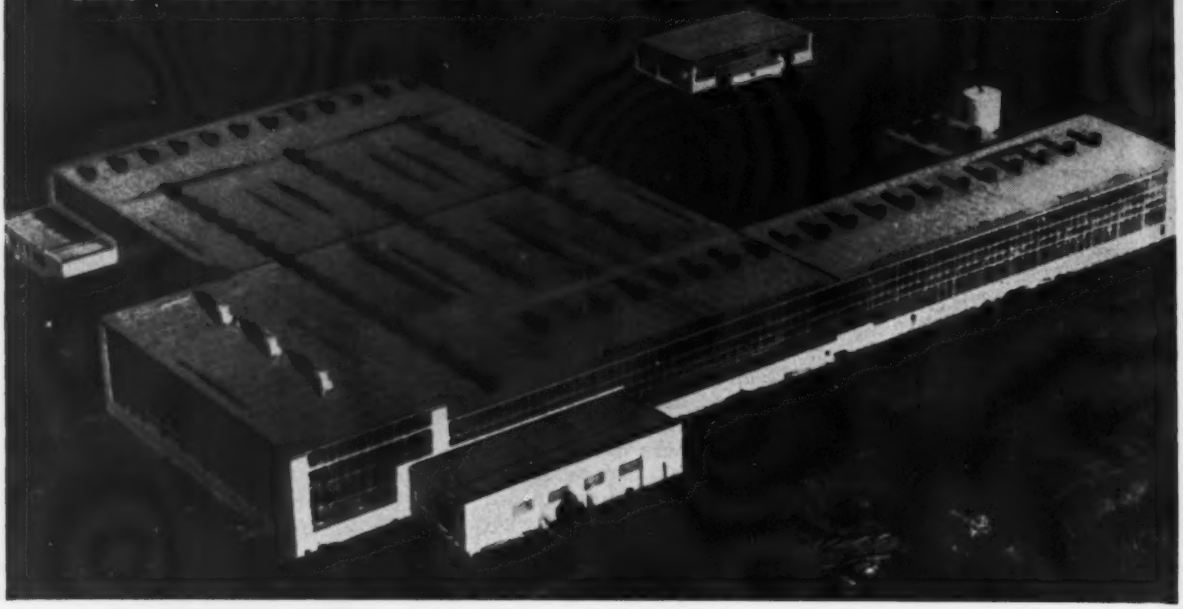

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At each step, you will see how accuracy and quality are controlled. You will also see the way bright or "satin" finishes are produced.

How do you make a date with us? It's simple—just write and tell us you would like to come, and say how many of your business associates you would like to bring along.

We'll then set a time with you to suit your convenience. You won't obligate yourself the least bit.

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BUSINESS TIPS

from

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A Look At Connecticut Taxes

By HARRY D. KERRIGAN*

WHAT is the total tax bill paid in Connecticut? Information in the latest year available shows that 1.4 billions were paid in 1952. This compares with 831 millions paid in 1947, and 199 millions paid in 1937. The relative rise is as follows:

(In Millions)		
1937	1947	1952
$199	$831	$1,408

Index		
1937	1947	1952
100%	415%	704%

Inasmuch as it is customary today to compare specific price indexes with general price levels, it is perhaps significant to observe that the "price of government," as shown above, has easily out-paced any general price level rise since 1937. In fact, the seven-fold increase since 1937 is also greater than any specific price index that has come to the attention of the writer.

An even more interesting question is, what happens to the taxes collected in Connecticut? Referring to 1952 taxes, 78% went to Washington, to the Federal Government. The remaining 22% went to state and local government as follows: 11% to the state, 10% to municipalities, and less than 1% to counties.

The make-up of 1952 taxes collected in behalf of the Federal Government is shown below (dollars are in millions):

Income Taxes	70.9%	$ 997.1
Manufacturers excise taxes	2.0	27.7
Estate taxes	1.4	20.3
Alcohol taxes	1.3	18.3
Retail excise taxes	.5	6.9
Gift taxes	.1	1.4
All other Federal taxes	2.0	28.6
Total Federal Taxes	78.2%	$1,100.3

Of the taxes remaining for state and local use, the principal classifications are as follows (dollars are in millions):

State taxes:		
Taxes on business, industry, and individuals	6.4%	$ 89.4
Gasoline and fuel taxes	1.5	21.7
Motor vehicle and operator fees	.8	11.4
Unemployment compensation	2.5	35.0
Municipalities:		
Property taxes	10.2	143.7
Received from state	.2	3.0
Metropolitan District of Hartford		.8
Counties:		
Share of unincorporated business tax		.7
Town taxes (assessed against towns)	.2	2.6
Share of Liquor permits		.1
Total State and Local Taxes	21.8%	$308.4

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The foregoing dispositions of tax money in 1952 are compared below for prior years, 1947 and 1937.

All of these figures testify to trends that are disconcerting indeed. One is that a larger and larger proportion of taxes paid by individuals and firms domiciled in Connecticut are going out of state—to Washington. (Some of this tax money returns in the form of Federal grants in aid, but the return flow is probably only a trickle). The other trend is that state and local governments are getting a progressively smaller proportion of total taxes collected in Connecticut.

Kind of taxes	1937		1947		1952	
Federal	37.7%	$ 75.1	77.7%	$646.3	78.2%	$1,100.3
State	23.4	46.6	10.5	87.7	11.2	157.5
Municipalities	38.0	75.7	11.4	95.1	10.4	146.7
Counties (and Special Tax District)	.9	1.7	.4	2.5	.2	4.2
Total in Millions		$199.1		$831.6		$1,408.7
Total Percent	100.0%		100.0%		100.0%	

It is said that the greatest times of expansion of Federal taxes are during depressions and wars. This is no doubt true. What is easily overlooked, however, is that expanded taxes keep right on being levied after depressions and wars are over. The key explanation for this is that expanded activities continue even though the original impetus for the expansion has ceased. Then, too, it is necessary to keep on servicing the public debt incurred, not to mention the necessity of repaying it. In the meanwhile—which may be a long one—state and local governments must proceed on limited taxing powers. The limitation is both legal and economic, for it affects the right as well as the opportunity to tax. The limitation is also greater on local governments than on state government; and, in turn, greater on state government than on the Federal government. The powers of taxation seem to be unlimited for the Federal government, and just the opposite for state governments. Unless this condition is reversed, state governments must curtail the services expected of them, keep down their expenditures (or go into greater debt), and try to run their activities as efficiently as their limited taxing powers permit.*

* *All of the data presented in this article are from State of Connecticut, Public Document #48, entitled "Assessment and Collection of Taxes," annual reports for 1937, 1947, and 1952. Figures for the Federal Government and state government are for twelve months ended June 30, for the years shown; all other figures are for twelve months ended March 31, for the years shown.*

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It's the most popular golf grip . . . and one with several advantages. Pros point out that overlapping welds the hands together . . . permits good control of the club . . . helps synchronize "break" of wrists at impact.

Overlapping may strengthen your golf game, but it weakens your company's insurance coverage. When policies overlap, your company pays the penalty in *unnecessary premiums* or even *uncollected losses.*

An insurance "pro" can analyze your policies . . . discover uninsured hazards . . . correct errors and omissions in your coverage.

For many years K. M. Vreeland Co., insurance consultants and managing general agents, have been providing Connecticut industry with better coverage at less expense. Cost of their services is generally *more than offset* by savings they're able to effect . . . while providing better protection.

Why not call on them? They'll be glad to discuss your problem and make recommendations.

K·M·V K. M. VREELAND • INSURANCE

75 PEARL STREET • HARTFORD • CONN.

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Check

SPONGEX

CELLULAR RUBBER
FOR

✓ **CORD**

SHEETS
TUBING
STRIPS
PAD STOCK
DIE-CUT SHAPES
MOLDED FORMS

A few cords in actual size

Spongex cellular rubber cord effectively answers many sealing, insulating and cushioning problems. It is available in a variety of densities and compression ranges in either round or half-round form. Either form is available in practically any diameter from 3/16″ to 2″.

If desired, Spongex cord can be compounded with special qualities, such as resistance to oils, acids, corrosive vapors and extremes of temperature.

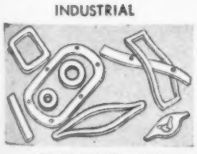
Spongex cellular rubber cord can be fabric covered by either vulcanizing or cementing. Circle gaskets are also available.

Cord is only one of the many forms of Spongex cellular rubber. So the next time you need cellular rubber—check with us—we'll be glad to help.

SPONGEX® *Cellular Materials*

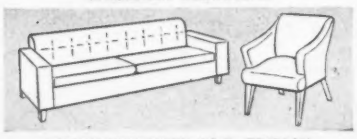
THE SPONGE RUBBER PRODUCTS COMPANY, 18 Derby Place, Shelton, Connecticut
In Canada: Canadian Sponge Rubber Products, Ltd., Waterville, Quebec

INDUSTRIAL



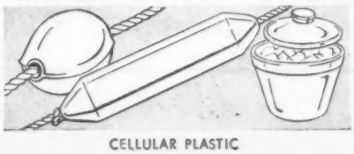
CELLULAR RUBBER

UPHOLSTERY CUSHIONING



TEXLITE RUBBERIZED HAIR—TEXFOAM

SEINE FLOATS—BOAT FENDERS—ICE BUCKETS



CELLULAR PLASTIC

CARPET CUSHION

SPONGE RUBBER

SPOTLIGHT ON THE FUTURE*

By R. C. SWANTON
Director of Purchases,
Winchester Repeating Arms Company,
Division of Olin Industries, Inc.

General Business Conditions

GRADUAL improvement in general industrial activity continued in May at about the same moderate rate as in April, in the opinion of the majority of the N.A.P.A. Business Survey Committee. For the third consecutive month, those reporting increases in orders and production top the decreases by a comfortable margin. May shows the lowest number reporting decreases since last June. Industrial material prices are firm but have failed to follow the trend to strengthen that was reported in April. The price softening appears to be in the fabricated items more than in basic materials. Purchased material inventories, though still on the down trend, indicate that correction has been completed by the majority, as 64% report holding to present or moderately increasing stocks. Employment trend is slightly up. Buying policy is of a conservative short range, and is expected to continue that way with existing easy availability of materials.

Over-all, the statistics and the comments reported show purchasing executives, barring strikes or international disturbances, to be optimistic for a steady, gradual improvement in industrial business for some time to come.

Commodity Prices

Industrial materials prices have failed to show the strength reported in March and April. The markets cannot be called soft. Most declines are reported in the fabricated products where keen competition is causing marginal concessions to be made in moving stocks of maintenance and other nonproductive supplies. Basic materials prices are considered firm at this time, and no sharp movement either way is looked for in the immediate future.

Inventories

Unworked purchased material inventories continue the down trend, but at a much slower pace than during the past several months. There has been a slight increase in the number reporting additions to stock, and a substantial increase in those reporting no change. General comment is that inventories can be held at a low point because of short procurement lead time and large warehouse stocks of many items. A few report taking in extra steel as a hedge against a steel strike. Turnover ratios are much better with lower stocks and frequent replacement.

Employment

The lowest number, 27%, since last September, show declining payrolls in May. Most of these are the result of a reduced work week or temporary furloughs. As against this trend, several report rehiring of layoffs of January and February. Reports indicate improved labor-management relations, with strike agitation not receiving employee approval. All classes of labor are available in most areas.

Buying Policy

Still conservative and predominantly in the "hand-to-mouth" to 60-day range. Upward escalation of prices has about disappeared except in large capital equipment contracts, and price decline protection is more freely offered. While Purchasing Agents are mildly optimistic, it is expected that a short-range procurement policy will continue so long as most materials remain easily available.

Specific Commodity Changes

The "downs" were more in number than the "ups." Nothing of great importance or degree reported.

Up were: Brass and bronze ingot, petroleum, coke, burlap sacks, cocoa, shortening, scrap iron and steel, mercury.

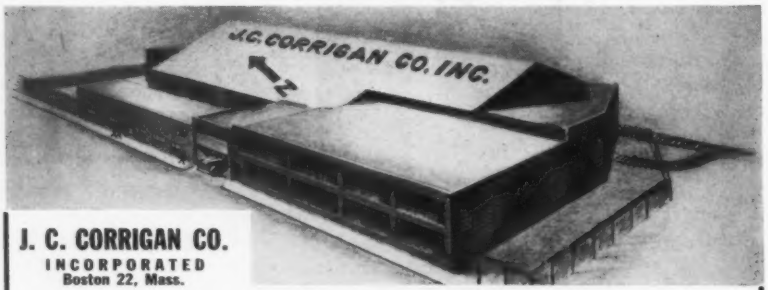
On the *down* side: Acetone, alcohol, automotive parts, carbides, coal, polyethylene bags, fuel oil, lumber (mixed), wastepaper, some steel, textiles.

Hard to get: Nickel, wide flanged steel beams.

Canada

Canadian order books have increased more than in the States. Production is a little better. Prices are about the same. Inventories are higher and employment is about on a par. Buying policy is somewhat more extended. In agreement with the opinions of buyers in the United States, Canadian Purchasing Agents are optimistic for continued improvement in industrial business.

* *Composite opinion of the purchasing agents who are members of the N.A.P.A. Business Survey Committee, whose Chairman is Robert C. Swanton.*



J. C. CORRIGAN CO.
INCORPORATED
Boston 22, Mass.

CONVEYORS

Engineers • *Manufacturers* • *Erectors*
Material Handling and Processing Equipment
PORTABLE COVEYORS • STORAGE BINS • COAL SILOS
Branch Serving Connecticut Industry
131 WHALLEY AVE., New Haven Tel. Locust 2-3080

ACCOUNTING HINTS

Contributed by the Hartford Chapter National Association of Cost Accountants to stimulate the use of better accounting techniques in industry.

Use of Standard Capacity for Determination of Burden Rate Application

INDUSTRIAL cost accounting has been defined as a phase of general accounting procedure by means of which details of the costs of material, labor, and expenses necessary to produce an article are recorded, summarized, analyzed and interpreted. It might be well to enlarge upon the definition and state that such results are interpreted and utilized to a great extent for the purpose of determining product selling prices.

The particular method or cost accounting system used and the recording procedures applied will necessarily vary with different types of industries, but will in general fall under the category of either Job Costs or Process Costs. Some concerns go a step farther and apply Standard Costs in the accounting technique of arriving at product costs. Standard or predetermined costs are those which are ascertained before the manufacturing operations commence. Where the latter system is in operation, the matter of burden rate application arises.

There are three basic elements of cost which are to be accounted for under any cost system; namely, direct materials, direct labor and manufacturing expenses. In the operation of a standard cost system the problem of variances between such predetermined or standard costs and actual costs of material, labor and overhead occurs. Insofar as material and labor costs are concerned, the going rates have not changed appreciably during the past year, and hence, these elements of cost do not create an immediate problem. It is the overhead variation occasioned by a lesser degree of productivity that was in effect or contemplated when the rates were set that prompts further consideration.

During the high volume output of recent years, most industrial concerns were operating at a high percent of plant capacity. Within the past year this situation has been substantially reversed. Whereas the actual overhead rate of a year or so ago was quite low, the condition now exists where this rate has continuously moved upward due to less production, and consequently the dollar amount of underabsorbed overhead becomes greater and greater.

This situation has far more serious implications than may at first appear. Selling prices of reputable concerns were generally based on rising actual costs during a period in which full plant capacity had its effect. Now these same companies are faced with a highly competitive market in which competition has a great deal to do with establishing selling prices. If the current actual rate is considered in arriving at selling prices the results would indicate many loss items. If the standard rate is applied, obviously the resulting unit cost would be far removed from the actual cost under today's manufacturing conditions.

In view of the foregoing, there are two alternative methods which may warrant consideration:

(1) *Base Rate on Normal Output:*

Under this method expense standards are set from an estimated "normal" volume of output which reflects in detail the individual expenses expected at this level of operations. In the matter of arriving at the so-called "normal" output level, many companies use 80% of total possible plant capacity as the base. The costs are determined for the "normal" level and volume fluctuant variations are left to accumulate until the end of the ac-

(Continued on page 68)

MORRISSEY & CHENEY
Insurance
GERARD MORRISSEY
BENJAMIN CHENEY
E. LEONARD CLARK
•
INSURANCE CONTROL
FOR
INDUSTRIAL AND COMMERCIAL
ACCOUNTS
•
163 ASYLUM ST., HARTFORD, CONN.

HARTFORD
Special
AUTOMATIC DRILLING & TAPPING
MACHINES
AUTOMATIC THREAD ROLLERS
"SUPER-SPACERS"
DIE POLISHING MACHINES
General Contract Machine Work
THE HARTFORD SPECIAL MACHINERY CO.
HARTFORD 12, CONNECTICUT

Designers and Manufacturers
of Tools, Dies, Jigs, Fixtures and Gages
Jig Boring and Jig Grinding
Precision Form Grinding
Planing, Boring, Turning
Cincinnati, Lucas and Bullard Machines
We build Special Machinery and Parts
Welded Fabrications
We will do your Stampings and Spot Welding
Progressive — Swedging
Broaching — Drawing
Short Runs — Long Runs
THE
SWAN TOOL & MACHINE CO.
30 Bartholomew Avenue
HARTFORD 6, CONNECTICUT

Exploiting Export Sales

(Continued from page 14)

demand for products, and realizing this, large importing customers are eager to exhibit goods, if they can profit by the publicity of being identified with the exhibit. The exporter can keep up-to-date with advance information on international trade fairs by consulting the "List of Fairs and Exhibitions Held Abroad" published by the U. S. Department of Commerce.

In view of foreign competition mentioned previously, the export executive will try to keep his overseas sales representatives and distributors as competitive as possible both as regards price and quality. In this connection, it may be possible for instance to make downward adjustments of export selling prices, perhaps by achieving economies in production costs or to the extent of any purely domestic overhead that may be included, such as domestic advertising, traveling expenses and salesmen's commissions.

Credit Policy

Of special importance nowadays is the question of credit terms. Depending upon individual market conditions, they will have to be realistic and often vary all the way from open account, clean or documentary sight drafts, to time drafts drawn at 120 days and in rare cases at even longer dating. This problem however can be greatly simplified by using specialized foreign credit and rating service facilities. Through them it is possible to keep loss, ratios as low or lower than in domestic trade. Moreover, with a sound credit policy, it may develop that the customer is no longer required to tie up his funds from the time he places the order until the goods reach his market. Thus he can order more frequently and thereby increase his turnover with resulting benefit to himself and his supplier. Nevertheless, where a country's economy is unstable, sales may be warranted only on a fully secured basis.

Meeting Competition

Now a word about export sales trips. Anyone who is going on one will notice that foreign competitors' export salesmen fill the hotels in countries that have been our best customers for years. Therefore, frequent trips abroad are more necessary than ever, actual or potential sales volume permitting, to keep in personal touch with the local representative and his problems.

The exporter will personally inspect markets now open to his products and markets that give signs of re-opening, for it is only through first hand observations that he can take effective steps to exploit to the utmost his export sales possibilities.

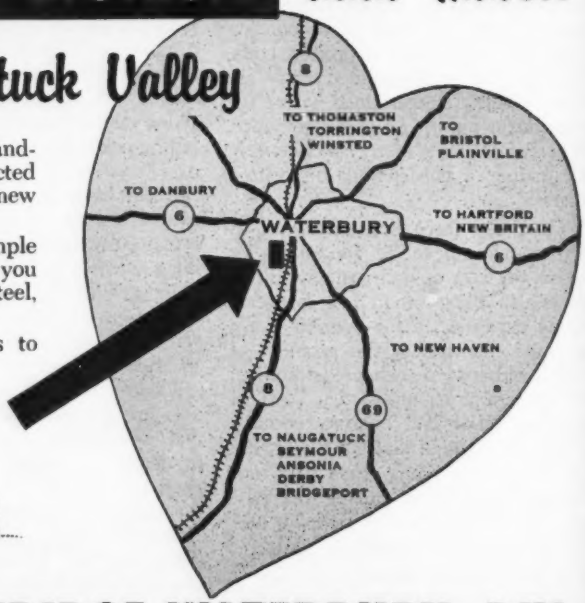
Finally, the American foreign trader may find countries that were formerly good markets have now either severely restricted or entirely prohibited imports of his type of goods if they are similar to those that are now being made locally. Under these circumstances, it may be wise to investigate the possibility of following the example of an increasing number of American exporting manufacturers who have managed to stay in such markets; sometimes by becoming partners with nationals of the country in these local manufacturing ventures and sometimes by setting up a local manufacturing operation entirely on their own.

Now! Hawkridge Brothers adds muscle to the heart of the Naugatuck Valley

In this highly industrialized area, the same precision standards that have made our name so widespread and respected in the New England area, are now available at this new location.

At Waterbury, in a modern metals warehouse, with ample trucking and railroad facilities, HAWKRIDGE can give you prompt and friendly service on their entire line of steel, brass and aluminum.

Slitting, sawing and rewinding equipment enable us to process your orders quickly and accurately.



TELEPHONE
WATERBURY AREAS 4-5148
ENTERPRISE 4670 IN

ANSONIA - BRIDGEPORT - BRISTOL - DANBURY - DEEP RIVER - DERBY - HARTFORD MERIDEN - NEW BRITAIN - NEW HAVEN PLAINVILLE - SEYMOUR - SOUTHINGTON TORRINGTON

HAWKRIDGE-WATERBURY, DIV.
POST OFFICE BOX 2119 • WATERBURY, CONNECTICUT

BUSINESS PATTERN

A comprehensive summary of the ups and downs of industrial activity in Connecticut for the thirty day period ending on the 15th day of the second previous month.

THE INDEX of general business activity in Connecticut fell off two percentage points in March to an estimated 15% above normal. This is the seventh consecutive decrease recorded by the business index which is now thirteen points below the standing of a year ago. A noticeable reduction in manhours worked in Connecticut factories was largely responsible for the current decline. Moderate decreases were also registered in the employment and freight shipment components of the index. Construction, on the other hand, rose sharply while cotton mill activity remained at approximately the same level as in the preceding month. The United States index of industrial activity declined one point in March to an estimated 2% above normal. This is the tenth successive decrease in the National index and places it about eighteen points under the level of a year ago. A drop in steel production to below 70% of capacity was the major reason for the continued decline in the U. S. index.

In March the index of factory employment in Connecticut continued to move down moderately to an estimated 16% above normal. The present standing is eight points less than a year ago and twelve points below the peak reached in June of last year. The following table based on State Department of Labor reports shows the changes which have occurred in manufacturing, non-manufacturing and total non-agricultural employment in this State during the past year:

	Manufacturing	*Non-Manufacturing*	*Total Non-Agricultural*
March, 1953	460,590	406,190	866,780
June, 1953	456,090	425,720	881,810
September, 1953	454,050	426,420	880,470
December, 1953	451,760	442,750	894,510
March, 1954	430,330	420,360	850,690

Manufacturing employment has experienced a general decline throughout the past twelve months. The change was moderate in the last nine months

Kill Two Birds With One Stone

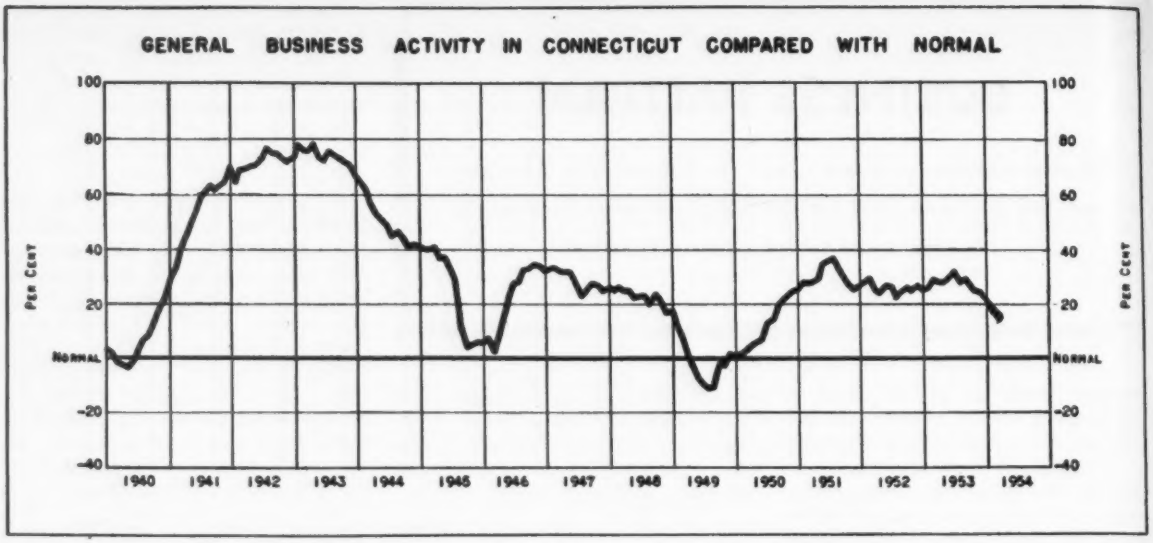
You Can Now Order From One Supplier At One Time With One Phone Call ALL Your Jig & Fixture Parts And Drill Bushings

West Point Manufacturing Company
Clamps and Fixture Parts

Universal Engineering Company
Drill Bushings

Select and Buy These Two Leaders and Get The Very Best in Quality and Service By Contacting The

NICKSON TOOL SALES COMPANY
94 Broadway North Haven, Connecticut
Phone CEdar 9-0574
Teletype NH 592



of 1953 but became more accentuated in the first quarter of this year when a drop of about 22,000 workers was recorded. During the year substantial reductions occurred in primary and fabricated metals, machinery, electrical equipment and textiles. Employment in non-manufacturing occupations, on the other hand, has shown improvement since March 1953. Growth was noticeable in the Spring of last year and then employment tended to level out, except for the seasonal peak in retail rade in December. Although increases took place in many non-manufacturing businesses in the past year, the largest were in retail trade and government. The combination of lower manufacturing and higher non-manufacturing employment resulted in an over-all decrease in total non-agricultural of about 16,000 since March 1953.

The March index of manhours worked in Connecticut factories is estimated at 22% above normal, a decline of six points from the previous month. This is the most noticeable drop in the past year, a period during which the index has fallen off about fourteen percentage points. The current decrease in total manhours was brought about by a loss in number of people working, mentioned above, coupled with a reduction in the average hours worked per week. Average hours worked per week in Connecticut factories were 40.2 in March compared with 41.8 at the beginning of this year and 42.8 in March 1953. Corresponding figures for the country as a whole were 39.4, 40.2 and 41.1. Since early 1953 there has been a gradual downward trend in the length of the work week in both the State and the Nation. However, in recent months the average work week in Connecticut factories has decreased more sharply than in other parts of the country. Average weekly earnings in this State were $71.96 in March against $75.24 at the first of this year and $74.90 a year ago. U. S. figures for the same periods were $70.53, $71.96 and $71.93. Weekly earnings remained relatively level throughout 1953 but in the first quarter of this year tended to decline, moderately in the Nation, but more noticeably in Connecticut. However, average hours and earnings in this State are still somewhat higher than for the country as a whole.

The index of construction activity in Connecticut rose noticeably in March to an estimated 107% above normal. This is the fourth consecutive increase in the construction index and places it at the highest level in twenty-one months. The total volume of contracts awarded for both residential and non-residential buildings has been exceptionally heavy in the last six months.

A Guide to Management Appraisal of its Advertising

(Continued from page 17)

general, or by limiting its use to a particular kind of person. But in attempting to make it fit everyone, it is likely in all except some special situations to fit no one. Some appeals used in advertising are quite general too. Some, like appetite, sex, mother love, business advancement, are *more or less* attractive to all. However, *the more general the appeal is in many cases the less intense it is likely to be;* and, it is less likely to arouse the maximum response. The editors of magazines and newspapers have recognized and have practiced this principle for years. Advertisers have been less inclined to accept it, despite such examples as the following test by The Coleman Company.

One advertisement was headlined *"BRIGHT SPOT OF YOUR HOME . . .";* and below, ". . . The Coleman Comfort You Enjoy For Less." About half of the space was given to a photograph of father, mother and baby,—a popular, general appeal. Five small drawings illustrated various heating installations with brief descriptions. A small block of copy, the signature and a coupon completed the layout. The second advertisement (also run in the *Saturday Evening Post* three weeks later, October 6) was captioned; *". . . HOW BIG IS YOUR HOUSE?"* And below, "There's a Coleman To Heat It Better . . . No Matter How Big . . . How Old . . . Or WHERE!" The remainder of the space (about seven-eighths) was divided into six blocks, five with drawings and description of the different installations, and the sixth for coupon and small signature. Note that the first was strong in human interest, and general in appeal, while the second stressed advantages of product and use, a more specific appeal. Starch ratings showed the advertisement (human interest) was one-third better *noted* by men, 84 percent better

noted by women. Nevertheless, the firm received 221 percent more *inquiries* from the second ad (product and use), which brought a *greater* response from those who *did* read it.

Next issue: How to Add Value to Your Products Through Advertising.

Dictaphone Corporation—Dictation Headquarters, U. S. A.

(Continued from page 8)

special recording machines for air traffic control, fire and police signal monitoring, court work, radio broadcast recording, also machines for inventory and conference recording.

Distribution System

To keep pace with its expanding business, Dictaphone maintains 155 company-owned offices in leading cities throughout the United States and Canada, while more than 100 Sales Agents spread the company's sales message in less populated areas.

The company's foreign business has also made great strides in the past years, and today Dictaphone products are distributed and serviced by 166 Sales Agents throughout the world. In 1947 Dictaphone Company, Ltd., England, a wholly owned British subsidiary, was formed, with manufacturing facilities at Acton, England.

The Dictaphone market is broad—broad as the whole field of recorded communication. In the true tradition of their ancestors, company scientists at the Bridgeport laboratories together with the 1,500 factory employees who compose the Bridgeport Dictaphone Family, are constantly working on new ways to improve the art of business recording. They join every Dictaphone employee in working towards the objective:

"To serve men and women in business, the professions and government the world over with the simplest and finest of dictating equipment

. . . by concentrating skilled teamwork on the design, manufacture, sale and servicing of dictating and recording equipment—

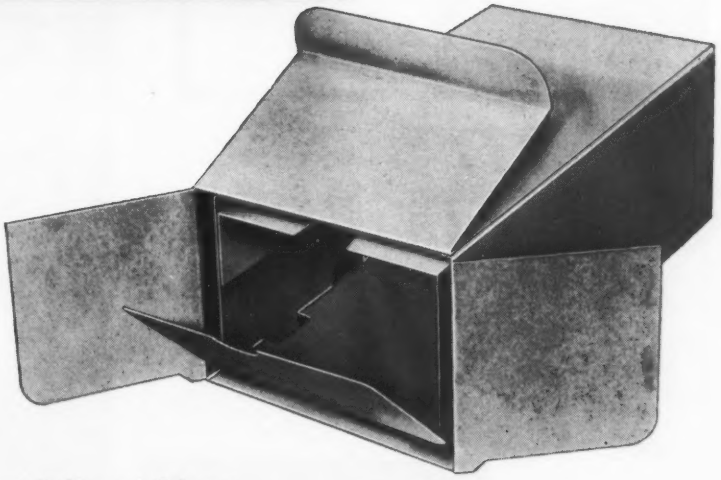
. . . by creating wider understanding and acceptance of the Dictaphone idea and the superiority of Dictaphone products so that the business may grow steadily and reward its owners and employees not only fairly but increasingly well—

. . . always remembering that "he who serves best, profits most."

That objective has particular meaning in an industry many consider still in its infancy. With business everywhere looking towards greater accomplishments, and with the continuing demand for better ways to increase productivity, Dictaphone believes that there is great growth ahead for its products. In the words of its Chairman, C. K. Woodbridge, Dictaphone "has a colorful past, a sparkling present, and an intriguing future."

Once Used-Always Used... Robertson Cushion Box*

- Double-wall construction prevents breakage
- Packaging costs reduced
- Packaging speeds increased
- Adaptable to two-part products
- Offers special features for display



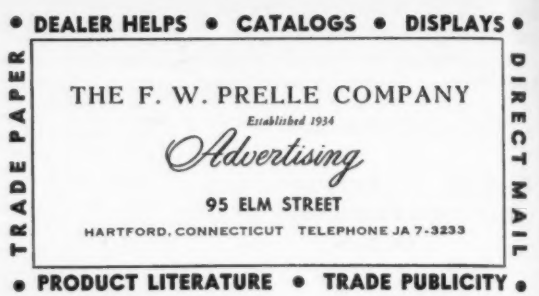
For FURTHER INFORMATION about Robertson Cushion and Robertson Partition Boxes please write Robertson Paper Box Company, Inc., Montville, Conn.

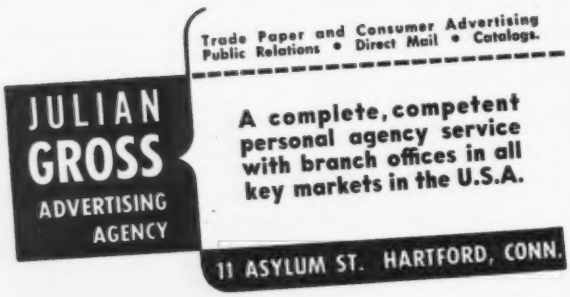
Robertson SINCE 1850 ROBERTSON PAPER BOX CO., INC.
MONTVILLE, CONNECTICUT
NEW YORK: 420 LEXINGTON AVENUE · BOSTON: PARK SQUARE BUILDING

Robertson SINCE 1850 does everything
Creates its own patented designs. Makes its own paperboard, dies and inks. Prints, cuts, folds and glues.
*Robertson Cushion Boxes are made under U.S. Patents 2,513,902 - 2,533,070 and pending applications.

CONNECTICUT ADVERTISING SERVICES

A DESCRIPTION OF THE PRINCIPAL ADVERTISING SERVICES RENDERED BY LEADING ADVERTISING AGENCIES IN THE STATE.




Trade Paper and Consumer Advertising
Public Relations • Direct Mail • Catalogs.
JULIAN GROSS
ADVERTISING AGENCY
A complete, competent personal agency service with branch offices in all key markets in the U.S.A.
11 ASYLUM ST. HARTFORD, CONN.

IT'S MADE IN CONNECTICUT

EDITOR'S NOTE: This department, giving a partial list of peace-time products manufactured in Connecticut by company, seeks to facilitate contacts between prospective purchasers in domestic or foreign markets and producers. It includes only those listings purchased by Connecticut manufacturers. Interested buyers may secure further information by writing this department. Connecticut manufacturers desiring to list their products in this department should write the Editor for listing rates.

(Advertisement)

Accounting Forms
Baker-Goodyear Co The — New Haven

Accounting Machines
Underwood Corporation — Bridgeport

Adding Machines
Underwood Corporation — Bridgeport

Advertising Specialties
H C Cook Co The 32 Beaver St — Ansonia
Halco Co — New Haven

Air Compressors
Spencer Turbine Co The — Hartford

Air Conditioning
Norwalk Airconditioning Corp The (forced air heating units oil fired) — South Norwalk

Air Impellers
The Torrington Manufacturing Co — Torrington

Aircraft
Sikorsky Aircraft Division United Aircraft Corporation (helicopters) — Bridgeport

Aircraft Accessories
Gabb Special Products Div E Horton & Son Company (filler caps—pressure fuel servicing systems) — Windsor Locks
Hamilton Standard Div United Aircraft Corp (propellors and other aircraft equipment) — Windsor Locks
Manning Maxwell & Moore Inc (aircraft pressure switches and jet engine afterburner control systems) — Stratford
Russell Manufacturing Company The (CAA approved safety belts; webbing and hardware for safety belts; shock rings and shock cord; ring and cord hardware; webbing for all aircraft applications) — Middletown

Aircraft Instruments
Gorn Electric Company Inc — Stamford

Aircraft—Repair & Overhaul
Airport Department Pratt & Whitney Aircraft Division — Rentschler Field East Hartford
United Airports Div United Aircraft Corp — Rentschler Field East Hartford

Aircraft Test Equipment
United Manufacturing Company — Hamden

Air Ducts
Wiremold Co The (Retractable) — Hartford

Air Heaters—Direct Fired
Peabody Engineering Corporation — Stamford

Aluminum Bronze Castings
Knapp Foundry Company Inc — Guilford

Aluminum Castings
Consolidated Industries Inc — West Cheshire
Eastern Malleable Iron Company The — Naugatuck
Newton-New Haven Co 688 Third Avenue — West Haven
Charles Parker Company The — Meriden
Stamford Casting Company Inc (Aluminum, Magnesium and Bronze) — Stamford

Aluminum Forgings
Consolidated Industries Inc — West Cheshire
Scovill Manufacturing Company — Waterbury 91

Aluminum Ingots
Lapides Metals Corp — New Haven

Aluminum Lasts
United States Rubber Company Shoe Hardware Division — Waterbury

Aluminum Paint
Baer Brothers — Stamford

Aluminum Paste
Baer Brothers — Stamford

Aluminum—Sheets & Coils
United Smelting & Aluminum Co Inc — New Haven

Ammunition
Remington Arms Co Inc and Peters Cartridge Div — Bridgeport
Winchester Repeating Arms Company Division Olin Industries Inc — New Haven

Anodizing
Conn Metal Finishing Co — Hamden

Anodizing Equipment
Conn Metalcraft Inc — New Haven

Artificial Leather
Permatex Fabrics Corp The — Jewett City

Asbestos
Auburn Manufacturing Company The (gaskets, packings, wicks) — Middletown
Raybestos Div of Raybestos-Manhattan Inc The (brake linings, clutch facings, sheet packing and wick) — Bridgeport

Asbestos & Rubber Packing
Colt's Manufacturing Company — Hartford

Asarcon Bronze
Knapp Foundry Company Inc (bushing & bearing stock) — Guilford

Assemblies—Small
Greist Manufacturing Co The — New Haven
J H Sessions & Son — Bristol
Wallace Barnes Co The Div Associated Spring Corp — Bristol

Auto Cable Housing
Wiremold Company The — Hartford

Automatic Control Instruments
Bristol Co The (temperature, pressure, flow, humidity, time) — Waterbury

Automobile Accessories
Kilbourn-Sauer Company (lights and other accessories) — Fairfield
Raybestos Div of Raybestos-Manhattan Inc The (brake, lining, rivet, brass, clutch facings, packing) — Bridgeport

Automotive Bodies
Metropolitan Body Company — Bridgeport

Automotive Parts
Eis Manufacturing Co (Hydraulic and Mechanical) — Middletown

Automotive & Service Station Equipment
Raybestos Div of Raybestos-Manhattan Inc The (brake service machinery) — Bridgeport
Scovill Manufacturing Company (Canned Oil Dispensers) — Waterbury 91

Automotive Tools
Eis Manufacturing Company — Middletown

Bags—Paper
American Paper Goods Company The — Kensington

Bakelite Moldings
Watertown Mfg Co The — Watertown

Balls
Abbott Ball Co The (steel bearing and burnishing) — Hartford
Hartford Steel Ball Co The (steel bearing and burnishing, brass, bronze, monel, stainless aluminum) — Hartford
Kilian Steel Ball Corp The — Hartford

Banbury Mixers
Farrel-Birmingham Company Inc — Ansonia

Barrels
Abbott Ball Co The (burnishing and tumbling) — Hartford
Hartford-Steel Ball Co The (tumbling) — Hartford

Barrels—Tumbling
Conn Metalcraft Inc — New Haven

Bathroom Accessories
Autoyre Company The — Oakville
Charles Parker Co The — Meriden

Batteries
Bond Electric Corporation Division of Olin Industries Inc (flashlight, radio, hearing aid and others) — New Haven
Winchester Repeating Arms Co Division of Olin Industries Inc (flashlight, radio, hearing aid and others) — New Haven

Bearings
Fafnir Bearing Co (ball) — New Britain
Marlin-Rockwell Corporation — Plainville
New Departure Div of General Motors (ball) — Bristol
Norma-Hoffmann Bearings Corp (ball and roller) — Stamford

Bellows
Bridgeport Thermostat Company Inc (metallic) — Bridgeport

Bellows Assemblies
Bridgeport Thermostat Company Inc — Bridgeport

Bellows Shaft Seal Assemblies
Bridgeport Thermostat Company Inc — Bridgeport

Bells
Bevin Brothers Mfg Co. — East Hampton
Gong Bell Co The — East Hampton
N N Hill Brass Co The — East Hampton

Belt Fasteners
Saling Manufacturing Company (patented self-aligning) — Unionville

Belting
Hartford Belting Co — Hartford
Russell Mfg Co The — Middletown
Thames Belting Co The — Norwich

Bends—Pipe or Tube
National Pipe Bending Co The — 160 River St New Haven

Bicycle Coaster Brakes
New Departure Div General Motors Corp — Bristol

Bicycle Sundries
New Departure Div General Motors Corp — Bristol

Binders Board
Colonial Board Company — Manchester

Biological Products
Ernst Bischoff Company Inc — Ivoryton

Blacking Salts for Metals
Enthone Inc — New Haven
Mitchell-Bradford Chemical Co — Bridgeport

Blades
Canewell Manufacturing Company Metal Saw Division (hack saw and band saw) — Hartford

Blankets—Automatic
General Electric Company — Bridgeport

Bleaching, Dyeing, Printing & Finishing
United States Finishing Company The (textile fabrics) — Norwich

Blocks
Howard Company (cupola fire clay) — New Haven

Blower Fans
Colonial Blower Company — Plainville
Spencer Turbine Co The — Hartford

Blower Systems
Colonial Blower Company — Plainville
Ripley Co — Middletown

Blueprints and Photostats
Joseph Merritt & Co — Hartford

Boilers
Bigelow Co The — New Haven

Bolts and Nuts
Blake & Johnson Co The (nuts machine screw-bolts, stove) — Waterville
Clark Brothers Bolt Co — Milldale

Bonderizing
Clairglow Mfg Company — Portland (Advt.)

Bottle Openers
Scoville Mfg Co (steel, anodized aluminum) Waterbury

Box Board
Lydall & Foulds Paper Co The Manchester
National Folding Box Co Inc New Haven
Robertson Paper Box Co Montville
Gair Company Inc Robert Montville
New Haven Board and Carton Co The New Haven

Boxes
Clairglow Mfg Company (metal) Portland
Connecticut Container Corporation New Haven
Gair Company Inc Robert (corrugated and solid fibre shipping containers) Montville
Merriam Mfg Co (steel cash, bond, security, fitted tool and tackle boxes) Durham
Warner Bros Co The (Acetate, Paper, Acetate and Paper Combinations, Counter Display, Setup) Bridgeport

Boxes and Crates
City Lumber Co of Bridgeport Inc The Bridgeport
Wallingford Planing Mill Co Inc Yalesville

Boxes—Metal
Merriam Mfg Co (Bond and Security, Cash and Utility, Personal Files and Drawer Safes) Durham

Boxes—Paper—Folding
Atlantic Carton Corp Norwich
Bridgeport Paper Box Co Bridgeport
Carpenter-Hayes Paper Box Co Inc The East Hampton
Curtis & Sons Inc S Sandy Hook
Dowd Carton Co M S Groton
Folding Cartons Incorporated (paper, folding) Versailles
Gair Company Inc Robert Portland
H J Mills Inc Bristol
National Folding Box Co Inc (paper folding) New Haven
New Haven Board and Carton Co The New Haven
Robertson Paper Box Co Montville
Warner Bros Co The Bridgeport

Boxes—Paper—Setup
Box Shop Inc The New Haven
Bridgeport Paper Box Co Bridgeport
Heminway Corporation The Waterbury
H J Mills Inc Bristol
Strouse Adler Company The New Haven
Warner Bros Co The Bridgeport

Brake Cables
Eis Manufacturing Co Middletown

Brake Linings
Raybestos Div of Raybestos-Manhattan Inc The (automotive and industrial) Bridgeport
Russell Mfg Co The Middletown

Brake Service Parts
Eis Manufacturing Co Middletown

Brass & Bronze
American Brass Co The (sheet, wire, rods, tubes) Waterbury
Bridgeport Brass Company (sheet, rod, wire and tubing) Bridgeport
Bristol Brass Corp The (sheet, wire, rods) Bristol
Chase Brass & Copper Co Waterbury
Miller Company The (phosphor bronze and brass in sheets, strips, rolls) Meriden
Plume & Atwood Mfg Co The (sheet, wire, rod) Thomaston
Scovill Manufacturing Company Waterbury 91
Tinsheet Metals Co The (sheets and rolls) Waterbury
Western Brass Mills Division of Olin Industries Inc (sheet, strip) New Haven

Brass & Bronze Ingot Metal
Plume & Atwood Mfg Co The Thomaston
Whipple and Choate Company The Bridgeport

Brass, Bronze, Aluminum Castings
Charles Parker Company The Meriden
Stamford Casting Company Inc Stamford
Victors Brass Foundry Inc Guilford

Brass Goods
American Associates Mfg Corp Deep River
American Brass Company The Waterbury
Plume & Atwood Mfg Co The (to order) Waterbury
Rostand Mfg Co The (Ecclesiastical Brass Wares) Milford
Scovill Manufacturing Company (to order) Waterbury 91
Western Brass Mills Division of Olin Industries Inc New Haven

Brass Mill Products
American Brass Company The Waterbury
Bridgeport Brass Co Bridgeport
Chase Brass & Copper Co Waterbury
Plume & Atwood Mfg Co The Thomaston
Scovill Manufacturing Company Waterbury 91
Western Brass Mills Division of Olin Industries Inc New Haven

Brick-Building
Donnelly Brick Co The New Britain

Bricks—Fire
Howard Company New Haven
Mullite Refractories Co The Shelton

Bright Wire Goods
Sargent & Company (Screw Eyes, Screw Hooks, Cup Hooks, Hooks and Eyes, C H Hooks) New Haven

Broaching
Hartford Special Machinery Co The Hartford

Bronze & Aluminum Castings
Knapp Foundry Company Inc (rough or machined) Guilford

Bronze Powders
Baer Brothers Stamford

Brooms—Brushes
Fuller Brush Co The Hartford

Buckles
B Schwanda & Sons Staffordville
G E Prentice Mfg Co The Kensington
Hawie Mfg Co The Bridgeport
John M Russell Mfg Co Inc. Naugatuck
North & Judd Manufacturing Co New Britain
Patent Button Co The Waterbury
United States Rubber Company Shoe Hardware Division Waterbury

Buffing & Polishing Compositions
Apothecaries Hall Co Waterbury
Lea Mfg Co Waterbury

Buffing Wheels
Williamsville Buff Div The Bullard Clark Company Danielson

Burners
Plume & Atwood Mfg Co The (kerosene oil lighting) Waterbury

Burners—Automatic
Peabody Engineering Corporation Stamford

Burners—Coal and Oil
Peabody Engineering Corporation (Combined) Stamford

Burners—Gas
Peabody Engineering Corporation (Blast Furnace) Stamford

Burners—Gas and Oil
Peabody Engineering Corporation (Combined) Stamford

Burners—Refinery
Peabody Engineering Corporation (For Gas and Oil) Stamford

Burnishing
Abbott Ball Co The (Burnishing Barrells and Burnishing Media) Hartford

Burs
Pratt & Whitney Div Niles-Bement-Pond Co West Hartford

Buttons
B Schwanda & Sons Staffordville
Frank Parizek Manufacturing Co The Putnam
Patent Button Co The Waterbury
Scovill Manufacturing Company (Uniform and Tack Fasteners) Waterbury 91
Waterbury Companies Inc (Uniform and Fancy Dress) Waterbury

Cabinets
Charles Parker Co The (medicine) Meriden

Cabinet Work
Hartford Builders Finish Co Hartford

Cable—Asbestos Insulated
Rockbestos Products Corp New Haven

Cable—BX Armored
General Electric Company Bridgeport

Cable—Nonmetallic Sheathed
General Electric Company Bridgeport

Cable—Service Entrance
General Electric Company Bridgeport

Cages
Andrew B Hendryx Co The (bird and animal) New Haven

Cams
American Cam Company Inc Hartford
Hartford Special Machinery Co The Hartford
Rowbottom Machine Company Inc Waterbury

Canvas Products
F B Skiff Inc Hartford

Capacitors
Electro Motive Mfg Co Inc The (mica & trimmer) Willimantic

Caps & Closures—Metal
American Associates Mfg Corp Deep River

Card Clothing
Standard Card Clothing Co The (for textile mills) Stafford Springs

Carpenter's Tools
Sargent & Company (Planes, Squares, Plumb Bobs, Bench Screws, Clamps and Saw Vices) New Haven

Carpet Cushion
Sponge Rubber Products Co Inc Shelton

Carpets and Rugs
Bigelow-Sanford Carpet Co Thompsonville

Casters
Bassick Company The (Industrial and General) Bridgeport

Casters—Industrial
George P Clark Co Windsor Locks

Castings
Connecticut Foundry Co (grey iron) Rocky Hill
Connecticut Malleable Castings Co (malleable iron castings) New Haven
Consolidated Industries Inc West Cheshire
Charles Parker Company The (grey iron, brass, bronze, aluminum) Meriden
Eastern Malleable Iron Company The (malleable iron, metal and alloy) Naugatuck
Farrel-Birmingham Company Inc (Meehanite, Nodular, Iron, Steel) Ansonia
Gillette-Vibber The (grey iron, brass, bronze, aluminum, also Bronze Bushing Stocks) New London
Plainville Casting Company (gray, alloy and high tensile irons) Plainville
Malleable Iron Fittings Co (malleable iron and steel) Branford
McLagon Foundry Co (grey iron) New Haven
Meyer Iron and Brass Foundry Inc (grey iron) Shelton
Newton-New Haven Co (zinc and aluminum) 688 Third Ave West Haven
Philbrick-Booth & Spencer Inc (grey iron) Hartford
Producto Machine Company The Bridgeport
Scovill Manufacturing Company (Brass & Bronze) Waterbury 91
Stamford Casting Company Inc (Aluminum, Magnesium and Bronze) Stamford
Turner & Seymour Mfg Co The (gray iron, semi steel and alloy) Torrington
Union Mfg Co (grey iron & semi steel) New Britain
Waterbury Foundry Company The (highway & sash weights) Waterbury
Wilcox Crittenden & Co Inc (gray iron and brass) Middletown

Castings—Investment
Arwood Precision Casting Corp Groton

Castings—Permanent Mould
Charles Parker Company The Meriden

Cements—Refractory
Mullite Refractory Co The Shelton

Chain
John M. Russell Mfg Co Inc Naugatuck
Turner and Seymour Mfg Co The (weldless, sash, jack, safety, furnace, universal, lion and cable) Torrington

Chain—Power Transmission and Conveying
Whitney Chain Company Hartford

Chain—Welded and Weldless
Bridgeport Chain & Mfg Co Bridgeport

Chain—Bead
Auto-Swage Products Inc Shelton
Bead Chain Mfg Co The Bridgeport

Chairs
The Hitchcock Chair Company Riverton

(Advt.)

Chemical Manufacturing
Carwin Company The — North Haven

Chemicals
American Cyanamid Company — Waterbury
Apothecaries Hall Co — Waterbury
Carwin Company The — North Haven
Edcan Laboratories — South Norwalk
Macalaster Bicknell Company — New Haven
MacDermid Incorporated — Waterbury
Naugatuck Chemical Division United States Rubber Co — Naugatuck
New England Lime Company — Canaan
Pfizer & Co Inc Chas — Groton

Chemicals—Agriculture
Naugatuck Chemical Division United States Rubber Co (insecticides, fungicides, weed killers) — Naugatuck

Chemicals—Aromatic
Naugatuck Chemical Division United States Rubber Co — Naugatuck

Christmas Light Clips
Foursome Manufacturing Co — Bristol

Chromium Plating
American Associates Mfg Corp — Deep River
Chromium Corp of America — Waterbury
Chromium Process Company The — Shelton
City Plating Works Inc — Bridgeport

Chucks
Cushman Chuck Co The — Hartford
Horton Chuck Div The E Horton & Son Company — Windsor Locks
Jacobs Manufacturing Co The — West Hartford
Union Manufacturing Company — New Britain

Chucks—Drill
Jacobs Manufacturing Co The — West Hartford

Chucks & Face Plate Jaws
Union Mfg Co — New Britain
Horton Chuck Div The E Horton & Son Company — Windsor Locks

Chucks—Power Operated
Cushman Chuck Co The — Hartford
Union Manufacturing Company — New Britain

Clay
Howard Company (Fire Howard "B" and High Temperature Dry) — New Haven

Cleaning Compounds
Enthone Inc (Industrial) — New Haven

Cleansing Compounds
MacDermid Incorporated — Waterbury

Clock Mechanisms
Lux Clock Mfg Co The — Waterbury

Clocks
E Ingraham Co The — Bristol
Seth Thomas Clocks — Thomaston
United States Time Corporation The — Waterbury

Clocks—Alarm
Lux Clock Mfg Co The — Waterbury

Clocks—Automatic Cooking
Lux Clock Mfg Co The — Waterbury

Clutches
Snow-Nabstedt Gear Corp The — New Haven

Clutch Facings
Russell Mfg Co The — Middletown

Clutch—Friction
Raybestos Div of Raybestos-Manhattan Inc The (clutch facings—molded, woven, fabric, metallic) — Bridgeport

Coils
Dano Electric Company — Winsted

Coils—Electric
Bittermann Electric Company — Canaan

Coils—Pipe or Tube
National Pipe Bending Co The — 160 River St New Haven
Whitlock Manufacturing Co The — Hartford

Commercial Heat Treating
A F Holden Company The — 52 Richard St West Haven

Commercial Truck Bodies
Metropolitan Body Company — Bridgeport

Comparators
Pratt & Whitney Div Niles-Bement-Pond Co (Electro-limit and Air-O-Limit) — West Hartford

Compressors
Norwalk Company Inc (high pressure air and gas) — South Norwalk

Concrete Products
Plastricrete Corp — Hamden

Cones
Sonoco Products Co (Climax-Lowell Div) (Paper) — Mystic

Consulting Engineers
Stanley P Rockwell Co Inc The (Consulting) 296 Homestead Ave — Hartford

Continuous Mill Gages
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Contract Machining
Malleable Iron Fittings Company — Branford

Contract Manufacturers
American Associates Mfg Corp (metal stampings & assemblies) — Deep River
Greist Mfg Co The (metal parts and assemblies) 503 Blake St — New Haven
Merriam Mfg Co (production runs—metal boxes and containers to specifications) — Durham
Plume & Atwood Mfg Co The (metal parts & assemblies) — Waterbury
Scovill Manufacturing Company (metal parts and assemblies) — Waterbury 91
J H Sessions & Son — Bristol

Controllers
Bristol Company The — Waterbury
Manning Maxwell & Moore Inc — Stratford

Conveyor Systems
Leeds Electric & Mfg Co The — East Haven
Production Equipment Co — Meriden

Copper
American Brass Corp The (sheet, wire, rods, tubes) — Waterbury
Bridgeport Brass Company (sheet, rod, wire and tubing) — Bridgeport
Bristol Brass Corp The (steel) — Bristol
Chase Brass & Copper Co (sheet, rod, wire tube) — Waterbury
Thinsheet Metals Co The (sheets and rolls) — Waterbury
Western Brass Mills Division of Olin Industries Inc (sheet, strip) — New Haven

Copper Castings
Knapp Foundry Company Inc — Guilford

Copper Sheets
American Brass Company The — Waterbury
New Haven Copper Co The — Seymour

Copper Shingles
New Haven Copper Co The — Seymour

Copper Water Tube
American Brass Company The — Waterbury
Bridgeport Brass Co — Bridgeport

Cords—Asbestos
General Electric Company — Bridgeport

Cords—Braided
General Electric Company — Bridgeport

Cords—Heater
General Electric Company — Bridgeport

Cords—Portable
General Electric Company — Bridgeport

Cord Sets
Seeger-Williams Inc — Bridgeport

Cord Sets—Electric
General Electric Company — Bridgeport

Cork Cots
Sonoco Products Co (Climax-Lowell Div) — Mystic

Corrugated Box Manufacturers
Connecticut Container Corporation — New Haven

Corrugated Shipping Cases
Connecticut Container Corporation — New Haven
Connecticut Corrugated Box Div Robert Gair Co Inc — Portland
D L & D Container Corp 87 Shelton Ave — New Haven

Cosmetic Containers
Evelet Specialty Co The — Waterbury
Plume & Atwood Mfg Co The (metal) — Waterbury

Cosmetics
J B Williams Co The — Glastonbury

Cotton and Asbestos Wicking
Bland Burner Co The — Hartford

Cotton Yarn
Floyd Cranska Co The — Moosup

Counting Devices
Veeder-Root Inc — Hartford

Couplings—Self-Sealing
Sperry Products Inc — Danbury

Cranes and Conveyors
I-B Engineering Sales Co — New Haven

Crushers
Farrel-Birmingham Company Inc (Stone and Ore) — Ansonia

Cups—Paper
American Paper Goods Company The ("Puritan") — Kensington

Cushioning for Packaging
Gilman Brothers Co The — Gilman

Cut Stone
Dextone Co The — New Haven

Cutters
Barnes Tool Company The (pipe cutters, hand) — New Haven
Mitrametric Co The (ground pinion) — Torrington
Pratt & Whitney Div Niles-Bement-Pond Co (Milling Cutters all types) — West Hartford

Decorative Plating and Polishing
City Plating Works Inc — Bridgeport

Delayed Action Mechanism
M H Rhodes Inc — Hartford
R W Cramer Company Inc The — Centerbrook

Demineralizers
Crystal Research Laboratories — Hartford

Diamonds—Industrial
Diamond Tool and Die Works — Hartford

Dictating Machines
Dictaphone Corporation — Bridgeport
Gray Manufacturing Company The — Hartford
Soundscriber Corporation The — New Haven

Die Castings
Newton-New Haven Co Inc — New Haven

Die Casting Dies
ABA Tool & Die Co — Manchester
Parker Stamp Works Co The — Hartford
Weimann Bros Mfg Co The — Derby

Die Castings (Aluminum & Zinc)
Stewart Die Casting Div Stewart Warner Corp — Bridgeport

Die Heads—Self Opening
Eastern Machine Screw Corp The Truman & Barclay Sts — New Haven

Die Polishing Machinery
Hartford Special Machinery Co The — Hartford

Die Sets
Pratt & Whitney Div Niles-Bement-Pond Co (Precision) — West Hartford
Producto Machine Company The — Bridgeport
Union Mfg Co (precision, steel and semi-steel) — New Britain

Dies
Hoggson & Pettis Mfg Co The 141 Brewery St — New Haven
Mitrametric Co The (ground for gears) — Torrington
Parker Stamp Works Inc The (plastics and die castings) — Hartford
Pratt & Whitney Div Niles-Bement-Pond Co (Monocone and Ducone Dies) — West Hartford

Die Sinkers
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Dies and Die Sinking
Consolidated Industries — West Cheshire

Dish Drying Machines
Colt's Manufacturing Company — Hartford

Dish Washing Machines
Colt's Manufacturing Company — Hartford

Displays—Metal
Merriam Mfg Co (Contract Work to Individual Specifications) — Durham (Advt.)

Door Closers
P & F Corbin Division The American Hardware Corp — New Britain
Sargent & Company — New Haven
Yale & Towne Mfg Co The — Stamford

Dowel Pins
Allen Manufacturing Co The — Hartford
Holo-Krome Screw Corp The — West Hartford

Drafting Accessories
Joseph Merritt & Co — Hartford

Drilling Machines
Pratt & Whitney Div Niles-Bement-Pond Co (Deep Hole) — West Hartford

Drilling and Tapping Machinery
Hartford Special Machinery Co The — Hartford

Drop Forgings
Atwater Mfg Co — Plantsville
Blakeslee Forging Company The — Plantsville
Capewell Mfg Company — Hartford
Consolidated Industries — West Cheshire
Wilcox Crittenden & Co Inc — Middletown

Druggists' Rubber Sundries
Seamless Rubber Company The — New Haven

Duplicating Machines—Automatic
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Electric Cables
Rockbestos Products Corp (asbestos insulated) — New Haven

Electric Clocks
Sessions Clock Co The (alarm, kitchen, occasional and office) — Forestville

Electric—Commutators & Segments
Cameron Elec Mfg Co The (rewinding motors) — Ansonia

Electric Cord Springs
Bristol Spring Manufacturing Co — Plainville

Electric Cords
General Electric Company — Bridgeport
Rockbestos Products Corp (asbestos insulated) — New Haven

Electric Eye Control
United Cinephone Corporation — Torrington

Electric Fixture Wire
General Electric Company — Bridgeport
Rockbestos Products Corp (asbestosinsulated) — New Haven

Electric Hand Irons
Winsted Hardware Mfg Co (trade mark "Durabilt") — Winsted

Electric Insulation
Case Brothers Inc — Manchester
Stevens Paper Mills Inc The — Windsor

Electric Lighting Fixtures
Fan-Craft Mfg Co (residential, church, post lanterns) — Plainville
Plume & Atwood Mfg Co The — Waterbury
Wasley Products Inc — Plainville

Electric Motor Controls
Arrow-Hart & Hegeman Electric Co The — Hartford

Electrical Outlet and Switch Boxes, and Covers
General Electric Company — Bridgeport

Electric Panel Boards
Federal Electric Products Co Inc — Hartford

Electric Safety Switches
Federal Electric Products Co Inc — Hartford

Electric Shavers
Schick Incorporated — Stamford

Electric Signs
Berger Sign Co — Hartford
United Advertising Corp — New Haven

Electric Switches
Arrow-Hart & Hegeman Electric Co The — Hartford
General Electric Company — Bridgeport

Electric Time Controls
R W Cramer Company Inc The — Centerbrook

Electric Timers
Sessions Clock Co The — Forestville

Electric Timing Motors
Sessions Clock Co The (small) — Forestville

Electric Wire
General Electric Company — Bridgeport
Rockbestos Products Corp (asbestos insulated) — New Haven

Electric Wiring Devices
Arrow-Hart & Hegeman Electric Co The — Hartford
General Electric Company — Bridgeport

Electrical Circuit Breakers
Federal Electric Products Co Inc — Hartford

Electrical Conduit Fittings & Grounding Specialties
Gillette-Vibber Company The — New London

Electrical Control Apparatus
Federal Electric Products Co Inc — Hartford

Electrical Goods
A C Gilbert Co — New Haven

Electrical Motors
U S Electrical Motors Inc — Milford

Electrical Outlet and Switch Boxes, and Covers
General Electric Company — Bridgeport

Electrical Recorders
Bristol Co The — Waterbury

Electrical Relays and Controls
Allied Control Co — Plantsville

Electrical Wiring Systems
Wiremold Co The — Hartford

Electronics
Gray Manufacturing Company The — Hartford
Ripley Co — Middletown
Sturrup Larrabee & Warmers Inc — Middletown

Electroplating
American Associates Mfg Corp — Deep River
National Sherardizing & Machine Co — Hartford
Waterbury Plating Company — Waterbury

Electroplating—Equipment & Supplies
Enthone Inc — New Haven
Lea Manufacturing Co The — Waterbury
MacDermid Incorporated — Waterbury

Electroplating Processes & Supplies
Enthone Inc — New Haven
United Chromium Incorporated — Waterbury

Electrotypes
Barnum-Hayward Electrotype Co Inc — New Haven
New Haven Electrotype Div Electrographic Corp — New Haven

Elevators
Eastern Machinery Co The (passenger and freight) — New Haven
General Elevator Service Co — Hartford

Enameling
Conn Metal Finishing Co — Hamden
Waterbury Plating Company — Waterbury

Enameling and Finishing
Clairglow Mfg Co — Portland

Enamels
Baer Brothers — Stamford

End Milling Cutters
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Engines
Pratt & Whitney Aircraft Div United Aircraft Corp (aircraft) — East Hartford
Wolverine Motor Works Inc (diesel stationary marine) — Bridgeport

Envelopes
Curtis 1000 Inc — Hartford
United States Envelope Company Hartford Division — Hartford

Envelopes—Stock and Special
American Paper Goods Company The — Kensington

Extractors—Tap
Walton Company The — West Hartford

Eyelets
American Brass Company The — Waterbury
Platt Bros & Co The P O Box 1030 — Waterbury
Plume & Atwood Mfg Co The — Waterbury
Scovill Manufacturing Company — Waterbury 91

Eylets, Ferrules and Wiring Terminals
American Brass Company The — Waterbury

Eylet Machine Products
Ball & Socket Mfg Co The — West Cheshire
American Brass Company The — Waterbury

Fabricated Alloys
Rolock Inc (Heat Treating, Finishing) — Fairfield

Fancy Dress Buttons and Buckles
Waterbury Companies Inc — Waterbury

Fans—Electric
General Electric Company — Bridgeport

Fasteners—Slide & Snap
G E Prentice Mfg Co The — Kensington
Scovill Manufacturing Company (snap and slide fasteners) — Waterbury 91

Felt
Auburn Manufacturing Company The (mechanical, cut parts) — Middletown
Drycor Felt Company (paper makers and industrial) — Staffordville

Felt—All Purpose
American Felt Co (Mill & Cutting Plant) — Glenville
Chas W House & Sons Inc (Mills & Cutting Plant) — Unionville

Fenders—Boat
Sponge Rubber Products Co Inc — Shelton

Fibre Board
Case Brothers Inc — Manchester
C H Norton Co The — North Westchester
Stevens Paper Mills Inc The — Windsor

Finger Nail Clippers
H C Cook Co The — 32 Beaver St Ansonia

File Cards
Standard Card Clothing Co The — Stafford Springs

Films
Cine-Video Productions Inc — Milford

Firearms
Colt's Manufacturing Company — Hartford
Marlin Firearms Co The — New Haven
O F Mosberg & Sons Inc — New Haven
Remington Arms Company Inc — Bridgeport
Winchester Repeating Arms Company Division Olin Industries Inc — New Haven

Fire Hose
Fabrics Fire Hose (municipal and industrial) — Sandy Hook

Fireplace Goods
American Windshield & Specialty Co The 881 Boston Post Road — Milford
John P Smith Co The (screens) 423-33 Chapel St — New Haven

Fireproof Floor Joists
Dextone Co The — New Haven

Fireworks
M Backes' Sons Inc — Wallingford

Fishing Tackle
Bevin-Wilcox Line Co The (lines) — East Hampton
H C Cook Co The 32 Beaver St — Ansonia
Horton Mfg Co The (reels, rods, lines) — Bristol

Flashlights
Bond Electric Corporation Division of Olin Industries Inc — New Haven
Bridgeport Metal Goods Mfg Co — Bridgeport
Winchester Repeating Arms Company Division Olin Industries Inc — New Haven

Flat Springs
Bristol Spring Manufacturing Co — Plainville

Flexible Shaft Machines
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford (Advt.)

Floor & Ceiling Plates
Beaton & Cadwell Mfg Co The New Britain

Fluorescent Lighting Equipment
Vanderman Manufacturing Co The Willimantic
Wiremold Company The Hartford

Food Mixing Machines
Colt's Manufacturing Company Hartford

Forgings
Clark Brothers Bolt Co Milldale
Consolidated Industries Inc West Cheshire
Heppenstall Co (all kinds and shapes) Bridgeport
Scovill Manufacturing Company (Non-ferrous) Waterbury 91

Foundries
Connecticut Malleable Castings Co (malleable iron castings) New Haven
Farrel-Birmingham Company Inc (Iron and Steel) Ansonia
Charles Parker Company The (iron, brass, bronze, aluminum) Meriden
Plainville Casting Company (gray, alloy and high tensile irons) Plainville
Producto Machine Company The Bridgeport
Stamford Casting Company Inc (Aluminum, Magnesium and Bronze) Stamford
Stonington Div of Emhart Manufacturing Co Stonington
Union Mfg Co (gray iron & semi steel) New Britain
Wilcox Crittenden & Co Inc (iron, brass, aluminum and bronze) Middletown

Foundry Riddles
John P Smith Co The 423-33 Chapel St New Haven
Rolock Inc (brass, galvanized steel) Fairfield

Fuel Oil Pump and Heater Sets
Peabody Engineering Corporation Stamford

Furnaces
Norwalk Airconditioning Corp The (warm air oil fired) South Norwalk

Furnace Linings
Mullite Refractories Co The (refractories, super refractories) Shelton

Fuses—Plug and Cartridge
General Electric Company Bridgeport

Gage Blocks
Pratt & Whitney Div Niles-Bement-Pond Co (Alloy steel and Carbide, Hoke and USA) West Hartford

Galvanizing
Malleable Iron Fittings Co Branford
Wilcox Crittenden & Co Inc Middletown

Galvanizing & Electrical Plating
Gillette-Vibber Co The New London

Gaskets
Auburn Manufacturing Company The (from all materials) Middletown
Raybestos Div of Raybestos-Manhattan Inc The Bridgeport
Tsingris Die Cutting Corp (from all materials) Waterbury

Gas Range Conversion Burner
Holyoke Heater Corp of Conn Inc Hartford

Gas Scrubbers, Coolers and Absorbers
Peabody Engineering Corporation Stamford

Gauges
Bristol Co The (pressure and vacuum—recording automatic control) Waterbury
Helicoid Gage Division American Chain & Cable Co The (pressure and vacuum) Bridgeport
Manning Maxwell & Moore Inc Stratford
Pratt & Whitney Div Niles-Bement-Pond Co (Precision Measurement all types) West Hartford

Gears
Mitrametric Co The (blanked fine pitch) Torrington

Gears and Gear Cutting
Farrel-Birmingham Company Inc Ansonia
Hartford Special Machinery Co The Hartford

Glass Blowing
Macalaster Bicknell Company New Haven

Glass Cutters
Fletcher-Terry Co The Forestville

Glass Making Machinery
Hartford-Empire Company Div of Emhart Manufacturing Co Hartford

Golf Equipment
Horton Mfg Co The (clubs, shafts, balls, bags) Bristol

Greeting Cards
A D Steinbach & Sons Inc New Haven

Grinding
Farrel-Birmingham Company Inc (Roll and Cylindrical) Ansonia
Hartford Special Machinery Co The (gears, threads cams and splines) Hartford
Horberg Grinding Industries Inc (Precision custom grinding; centerless, cylindrical, surfaces, internal and special) 19 Staples St Bridgeport

Grinding Heads—Internal
Pratt & Whitney Div Niles-Bement-Pond Co (Pneumatic, High Speed) West Hartford

Grinding Machines
Farrel-Birmingham Company Inc (Roll) Ansonia
Pratt & Whitney Div Niles-Bement-Pond Co (Surface, Die, Gear and Cutter Grinders) West Hartford
Rowbottom Machine Company Inc (cam) Waterbury

Grommets
American Brass Company The Waterbury
Plume & Atwood Mfg Co The Waterbury

Guards for Machinery
Wheeler Co The G E New Haven

Hack and Band Saw Blades
Capewell Manufacturing Co The Hartford

Hand Tools
Bridgeport Hdwe Mfg Corp The (nail pullers, scout axes, box opening tools, trowels, coping saws, putty knives) Bridgeport

Hard Crome
City Plating Works Inc Bridgeport

Hardness Testers
Wilson Mechanical Instrument Div American Chain & Cable Company Inc Bridgeport

Hardware
Bassick Company The (Automotive) Bridgeport
Harloc Products Corp New Haven
P & F Corbin Division The American Hardware Corp (builders) New Britain
Sargent & Company New Haven
Wilcox Crittenden & Co Inc (marine heavy and industrial) Middletown
Yale & Towne Mfg Co The Stamford

Hardware—Marine & Bus
Rostand Mfg Co The Milford

Hardware—Trailer Cabinet
Excelsior Hardware Co The Stamford

Hardware, Trunk & Luggage
Corbin Cabinet Lock Div American Hardware Corp New Britain
J H Sessions & Son Bristol
Yale & Towne Mfg Co The Stamford

Hat Machinery
Doran Bros Inc Danbury

Health Surgical & Orthopedic Supports
Berger Brothers Company The (custom made for back, breast, and abdomen) New Haven

Heat Exchangers
Whitlock Manufacturing Co The Hartford

Heat Elements
Safeway Heat Elements Inc (woven wire resistance type) Middletown

Heat Treating
A F Holden Co The 52 Richard St West Haven
Bennett Metal Treating Co The 1045 New Britain Ave Elmwood
New Britain-Gridley Machine Division The New Britain Machine Co New Britain
Stanley P Rockwell Co Inc The 296 Homestead Ave Hartford

Heat-Treating Equipment
Autoyre Company The Oakville
A F Holden Company The 52 Richard Street West Haven(Main Plant)
Bauer & Company Inc Hartford
Rolock Inc (Baskets, Muffles, etc.) Fairfield
Stanley P Rockwell Co Inc The (commercial) 296 Homestead Ave Hartford
Wallace Barnes Co The Div Associated Spring Corp Bristol

Heat Treating Fixtures
Wiretex Mfg Co Inc Bridgeport

Heat Treating Salts and Compounds
A F Holden Company The 52 Richard Street West Haven
Mitchell-Bradford Chemical Co Bridgeport

Heating and Cooling Coils
G & O Manufacturing Co New Haven

Heavy Chemicals
Naugatuck Chemical Division United States Rubber Co (sulphuric, nitric and muriatic acids and aniline oil) Naugatuck

Hex-Socket Screws
Bristol Company The Waterbury
Holo-Krome Screw Corp The West Hartford

Highway Guard Rail Hardware
Malleable Iron Fittings Co Branford

Hinges
Homer D Bronson Company Beacon Falls

Hobs and Hobbings
ABA Tool & Die Co Manchester
Pratt & Whitney Div Niles-Bement-Pond Co (Die and Thread Milling) West Hartford

Hoists
J-B Engineering Sales Co New Haven

Hoists and Trolleys
Union Mfg Company New Britain

Home Laundry Equipment
General Electric Company Bridgeport

Hose—Flexible Metallic
American Brass Co
American Metal Hose Branch Waterbury

Hose Supporter Trimmings
Hawie Mfg Co The (So-Lo Grip Tabs) Bridgeport

Hospital Signal Systems
Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc Meriden

Hydraulic Brake Fluids
Eis Manufacturing Co Middletown

Hydraulic Controls
Sperry Products Inc Danbury

Hypodermic Needles
Roehr Products Company Waterbury

Inductors
C G S Laboratories Inc Stamford

Industrial Finishes
Atlas Powder Co Zapon Div Stamford
Chemical Coatings Corporation Rocky Hill
United Chromium Incorporated Waterbury

Industrial Tools—Powder Actuated
Remington Arms Company Inc Bridgeport

Infra-Red Equipment
Leeds Electric and Mfg Co The Hartford

Insecticides
American Cyanamid Company Waterbury

Insecticide Bomb
Bridgeport Brass Company (Aer*a*sol) Bridgeport

Insulated Wire & Cable
General Electric Company Bridgeport
Kerite Company The Seymour

Insulated Wire & Cable Machinery
Davis Electric Company Wallingford

Instruments
Bristol Company The Waterbury
J-P-T Instruments Inc (Electrical and Temperature) New Haven
Manning Maxwell & Moore Inc Stratford
Pratt & Whitney Div Niles-Bement-Pond Co (Precision Measuring) West Hartford

Insulation
Gilman Brothers Co The Gilman (Advt.)

Inter-Communications Equipment
Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc — Meriden

Interval Timers
Lux Clock Manufacturing Company — Waterbury
Rhodes Inc M H — Hartford

Ironing Machines—Electric
General Electric Company — Bridgeport

Jacquard
Case Brothers Inc — Manchester

Japanning
J H Sessions & Son — Bristol

Jig Borer
Moore Special Tool Co (Moore) — Bridgeport
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Jig Grinder
Moore Special Tool Co (Moore) — Bridgeport

Jointing
Raybestos Div of Raybestos-Manhattan Inc The (compressed sheets) — Bridgeport

Keller Machines
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Key Blanks
Sargent & Company — New Haven
Yale & Towne Mfg Co The — Stamford

Labels
J & J Cash Inc (Woven) — South Norwalk
Naugatuck Chemical Division United States Rubber Co (for rubber articles) — Naugatuck

Label Moisteners
Better Packages Inc — Shelton

Laboratory Equipment
Eastern Industries Inc — New Haven

Laboratory Supplies
Macalaster Bicknell Company — New Haven

Laces
Wilcox Lace Corporation The — Middletown

Laces and Nettings
Wilcox Lace Corporation The — Middletown

Lacquers & Synthetic Enamels
Atlas Powder Co Zapon Div — Stamford
Baer Brothers — Stamford
Chemical Coatings Corporation — Rocky Hill
United Chromium Incorporated — Waterbury

Ladders
A W Flint Co — 196 Chapel St New Haven

Lamps
Plume & Atwood Mfg Co The (metal oil) — Waterbury

Lampholders—Incandescent and Fluorescent
General Electric Company — Bridgeport

Lamp Shades
Verplex Company The — Essex

Lathes—Contin-U-Matic
Bullard Company The (vertical multi-spindle-continuous turning type) — Bridgeport

Lathes—30H Man-Au-Trol
Bullard Company The (horizontal 3 spindle) — Bridgeport

Lathes—Mult-Au-Matic
Bullard Company The (vertical multi-spindle-indexing type) — Bridgeport

Lathes—Toolroom and Automatic
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Lathes—Vertical Turret
Bullard Company The (single spindle) — Bridgeport

Laundry Roll Covers
Atlas Powder Co Zapon Div — Stamford

Lead Plating
Christie Plating Co The — Groton

Leather
Herman Roser & Sons Inc (Genuine Pigskin) — Glastonbury

Leather Dog Furnishings
Andrew B Hendryx Co The — New Haven
The Smith-Worthington Saddlery Co — Hartford

Leather Goods Trimmings
G E Prentice Mfg Co The — Kensington

Leather, Mechanical
Auburn Manufacturing Company The (packings, cubs, washers, etc) — Middletown

Letterheads
Lehman Brothers Inc (designers, engravers, lithographers) — New Haven

Lighting Accessories—Fluorescent
General Electric Company — Bridgeport

Lighting Equipment
Miller Co The (Miller, Duplexalite, Ivanhoe) — Meriden
United Manufacturing Co — New Haven

Lime
New England Lime Company — Canaan

Lipstick Containers
Bridgeport Metal Goods Mfg Co — Bridgeport

Lithographers
O'Toole & Sons Inc T — Stamford

Lithographing
Kellogg & Bulkeley A Division of Connecticut Printers Inc — Hartford
Lehman Brothers Inc — New Haven
A D Steinbach & Sons — New Haven

Locks—Banks
Yale & Towne Mfg Co The — Stamford

Locks—Builders
Eagle Lock Co The — Terryville
P & F Corbin Division The American Hardware Corp — New Britain
Sargent & Company — New Haven
Yale & Towne Mfg Co The — Stamford

Locks—Cabinet
Eagle Lock Co The — Terryville
Excelsior Hardware Co The — Stamford
Yale & Towne Mfg Co The — Stamford

Locks—Special Purpose
Eagle Lock Co The — Terryville
Yale & Towne Mfg Co The — Stamford

Locks—Suitcase
Eagle Lock Co The — Terryville

Locks—Suit-Case and Trimmings
Excelsior Hardware Co The — Stamford

Locks—Trunk
Eagle Lock Co The — Terryville
Excelsior Hardware Co The — Stamford
Yale & Towne Mfg Co The — Stamford

Locks—Zipper
Excelsior Hardware Co The — Stamford

Loom—Non-Metallic
Wiremold Company The — Hartford

Lumber & Millwork Products
City Lumber Co of Bridgeport Inc — Bridgeport

Machetes
Collins Company The — Collinsville

Machine Design
Black Rock Mfg Company The — Bridgeport

Machine Tools
Bullard Company The — Bridgeport
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford
Producto Machine Company The — Bridgeport

Machine Work
Black Rock Mfg Company The — Bridgeport
Farrel-Birmingham Company Inc — Ansonia
Fenn Manufacturing Company The (precision parts) — Hartford
Hartford Special Machinery Co The (contract work only) — Hartford
National Sheradizing & Machine Co (job) — Hartford
Parker Stamp Works Inc The (Special) — Hartford
Swan Tool & Machine Co The — Hartford
Torrington Manufacturing Co The (special rolling mill machinery) — Torrington

Machinery
Fenn Manufacturing Company The (special) — Hartford
Globe Tapping Machine Company (dial type drilling and tapping) — Bridgeport
Hallden Machine Company The (mill) — Thomaston
Torrington Manufacturing Co The (mill) — Torrington

Machinery—Bolt and Nut
Waterbury Farrel Foundry & Machine Co The — Waterbury

Machinery—Cold Heading
Waterbury Farrel Foundry & Machine Co The — Waterbury

Machinery Dealers & Rebuilders
Botwinik Brothers — New Haven
J L Lucas and Son — Fairfield
State Machinery Co Inc — New Haven

Machinery—Extruding
Standard Machinery Co The — Mystic

Machinery—Metal-Working
Waterbury Farrel Foundry & Machine Co The — Waterbury
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Machinery—Nut
Waterbury Farrel Foundry & Machine Co The (forming and tapping) — Waterbury

Machinery—Screw and Rivet
Waterbury Farrel Foundry & Machine Co The — Waterbury

Machinery—Wire Drawing
Waterbury Farrel Foundry & Machine Co The — Waterbury

Machinery—Wire Straightening
Mettler Machine Tool Inc — New Haven

Machines
Campbell Machine Div American Chain & Cable Co Inc (cutting & nibbling) — Bridgeport
Coulter & McKenzie Machine Co The (special, new development engineering design and construction) — Bridgeport
Patent Button Company The — Waterbury

Machines—Automatic
A H Nilson Mach Co The (Special) — Bridgeport

Machines—Automatic Chucking
Bullard Company The — Bridgeport
New Britain-Gridley Machine Division The New Britain Machine Co (multiple spindle and double end) — New Britain
Pratt & Whitney Div Niles-Bement-Pond Co (Potter & Johnson) — West Hartford

Machines—Automatic Screw
New Britain-Gridley Machine Division The New Britain Machine Co (single and multiple spindle) — New Britain

Machines—Automatic Shaft Turning
Bullard Company The (30H lathe—horizontal 3 spindle) — Bridgeport

Machines—Brushing
Fuller Brush Co The — Hartford

Machines—Contin-U-Matic
Bullard Company The (verticle multi-spindle—continuous turning) — Bridgeport

Machines—Draw Benches
Fenn Manufacturing Company The — Hartford

Machines—Drill Spacing
Bullard Company The (Bullard spacer—used in conjunction with radical drills) — Bridgeport

Machines—Drop Hammers
Fenn Manufacturing Company The — Hartford

Machines—Forming
A H Nilson Mach Co The (four-slide wire and ribbon stock) — Bridgeport

Machines—Mult-Au-Matic
Bullard Company The — Bridgeport

Machines—Paper Ruling
John McAdams & Sons Inc — Norwalk

Machines—Pipe & Bolt Threading
Capewell Mfg Co The — Hartford

(Advt.)

Machines—Precision Boring
New Britain-Gridley Machine Division The New Britain Machine Co New Britain

Machines—Rolling
Fenn Manufacturing Company The Hartford

Machine—Slotting
Globe Tapping Machine Company The (High Production Screw Head Slotting) Bridgeport
Waterbury Farrel Foundry & Machine Co The (screw head) Waterbury

Machines—Special
Fuller Brush Co The Hartford

Machines—Swaging
Fenn Manufacturing Company The Hartford

Machines—Thread Rolling
Hartford Special Machinery Co The Hartford
Waterbury Farrel Foundry & Machine Co The Waterbury

Machines—Turks Head
Fenn Manufacturing Company The Hartford

Machines—Well Drilling
Consolidated Industries West Cheshire

Machines—Wire Drawing
Fenn Manufacturing Company The Hartford

Manicure Instruments
W E Bassett Company The Derby

Manganese Bronze Ingot
Whipple and Choate Company Bridgeport

Marine Engines
Kilborn-Sauer Company (running lights and searchlights) Fairfield
Lathrop Engine Co The Mystic

Marine Equipment
Russell Manufacturing Company The (utility cord and accessory hardware) Middletown
Wilcox Crittenden & Co Inc Middletown

Marine Reserve Gears
Snow-Nabstedt Gear Corp The New Haven

Marking Devices
Hoggson & Pettis Mfg Co The New Haven
Parker Stamp Works Inc The (steel) Hartford

Mattresses
Waterbury Mattress Co Waterbury

Metal Boxes and Displays
Durham Manufacturing Company The Durham
Merriam Mfg Co (Bond, Security, Cash, Utility, Personal Files, Drawer Safes, Custombilt containers and dsiplays) Durham

Metal Cleaners
Apothecaries Hall Co Waterbury
Enthone Inc New Haven
MacDermid Incorporated Waterbury

Metal Cleaning Machines
Colt's Manufacturing Company Hartford

Metal Finishes
Enthone Inc New Haven
Mitchell-Bradford Chemical Co Bridgeport
United Chromium Incorporated Waterbury

Metal Finishing
American Associates Mfg Corp Deep River
National Sheradizing & Machine Co Hartford
Waterbury Plating Company Waterbury

Metal Formings
Master Engineering Company West Cheshire

Metalizing
Conn Metal Finishing Co Hamden

Metal Novelties
H C Cook Co The 32 Beaver St Ansonia

Metal Products—Stampings
American Brass Company The Waterbury
J H Sessions & Son Bristol
Scovill Manufacturing Company (Made-to-Order) Waterbury 91

Metal Specialties
Excelsior Hardware Co The Stamford

Metal Stampings
American Associates Mfg Corp Deep River
American Brass Company The Waterbury
Autoyre Co The (Small) Oakville
Bridgeport Chain & Mfg Co Bridgeport
DooVal Tool & Mfg Inc The Naugatuck
Excelsior Hardware Co The Stamford
Greist Mfg Co The 503 Blake St New Haven
H C Cook Co The 32 Beaver St Ansonia
J A Otterbein Company The (metal fabrications) Middletown
J. H. Sessions & Son Bristol
Patent Button Co The Waterbury
G E Prentice Mfg Co The Kensington
Plume & Atwood Mfg Co The Waterbury
Saling Manufacturing Company Unionville
Stanley Works The New Britain
Swan Tool & Machine Co The Hartford
United States Rubber Company Shoe Hardware Division Waterbury
Verplex Company The (Contract) Essex
Waterbury Lock & Specialty Co The Milford

Meters—Gas
Sprague Meter Company Bridgeport

Meters—Parking
Rhodes Inc M H Hartford

Microfilming
American Microfilming Service Company New Haven

Microscope—Measuring
Lundeberg Engineering Company Hartford

Milk Bottle Carriers
John P Smith Co The 423-33 Chapel St New Haven

Millboard
Raybestos Div of Raybestos-Manhattan Inc The (asbestos) Bridgeport

Millwork
Hartford Builders Finish Co Hartford

Milling Machines
Pratt & Whitney Div Niles-Bement-Pond Co (Keller Tracer—Controlled Milling Machines) West Hartford
Rowbottom Machine Company Inc (cam) Waterbury

Mill Supplies
Wilcox Crittenden & Co Inc Middletown

Miniature Precision Connectors
Gorn Electric Co Stamford

Minute Minders
Lux Clock Mfg Co The Waterbury

Mirror Rosettes and Hangers
Waterbury Companies Inc Waterbury

Mixing Equipment
Eastern Industries Inc New Haven

Mops
Fuller Brush Co The Hartford

Moulded Plastic Products
Colt's Manufacturing Company Hartford
Patent Button Co The Waterbury
Waterbury Companies Inc Waterbury
Watertown Mfg Co The 117 Echo Lake Road Watertown

Mouldings
Himmel Brothers Co The (architectural, metal and store front) Hamden

Moulds
ABA Tool & Die Co Manchester
Hoggson & Pettis Mfg Co The (steel) 114 Brewery St New Haven
Lundeberg Engineering Company (plastics) Hartford
Parker Stamp Works Inc The (compression injection & transfer for plastics) Hartford

Napper Clothing
Standard Card Clothing Co The (for textile mills) Stafford Springs

Nettings
Wilcox Lace Corp The Middletown

Nickel Anodes
Apothecaries Hall Co Waterbury
Seymour Mfg Co The Seymour

Nickel Silver
American Brass Company The Waterbury
Plume & Atwood Mfg Co The Thomaston
Seymour Mfg Co The Seymour
Waterbury Rolling Mills Inc (sheets, strips, rolls) Waterbury
Western Brass Mills Division of Olin Industries Inc (sheet, strip) New Haven

Nickel Silver Ingot
Whipple and Choate Company The Bridgeport

Night Latches
P & F Corbin Division The American Hardware Corp New Britain
Sargent & Company New Haven
Yale & Towne Mfg Co Inc Stamford

Non-ferrous Metal Castings
Miller Company The Meriden

Nuts, Bolts and Washers
Clark Brothers Bolt Co Milldale

Office Equipment
Pitney-Bowes Inc Stamford
Underwood Corporation Bridgeport & Hartford

Offset Printing
Kellogg & Bulkeley A Division of Connecticut Printers Inc Hartford

Oil Burners
Malleable Iron Fittings Co (domestic) Branford
Miller Company The (domestic) Meriden
Peabody Engineering Corp (Mechanical and/or Steam Atomizer) Stamford
Silent Glow Oil Burner Corp The 1477 Park St Hartford

Oil Burner Wicks
Raybestos Div of Raybestos-Manhattan Inc The Bridgeport

Oil Tanks
Norwalk Tank Co The (550 to 30M gals, underwriters above and under ground) South Norwalk
Whitlock Manufacturing Co The Hartford

Optical Cores & Ingots
Plume & Atwood Mfg Co The Thomaston

Otis Woven Awning Stripes
The Falls Company Norwich

Outlets—Electric
General Electric Company Bridgeport

Ovens—Electric
Bauer & Company Inc Hartford

Package Sealers
Better Packages Inc Shelton

Packaging
Local Industries Inc (merchandising displays and packaging in wood) Lakeville

Packaging Machinery
Colt's Manufacturing Company (box making machinery. Trade mark "Rite Size") Hartford
Standard-Knapp Division of Emhart Manufacturing Co Portland

Packing
Auburn Manufacturing Company The (leather, rubber, asbestos, fibre) Middletown
Raybestos Div of Raybestos-Manhattan Inc The (rubber sheet and automotive) Bridgeport

Pads—Office
The Baker Goodyear Company New Haven

Padlocks
Sargent & Company New Haven
Waterbury Lock & Specialty Co The Milford
Yale & Towne Mfg Co Inc Stamford

Paints
Baer Brothers Stamford

Paints and Enamels
Staminate Corp The New Haven

Pants
Moore Special Tool Co (crush wheel dresser) Bridgeport

Paperboard
Gair Company Inc Robert Montville
Robertson Paper Box Co Montville
New Haven Pulp and Board Co The New Haven

Paper Boxes
Atlantic Carton Corp (folding) Norwich
Gair Co Inc Robert (folding) Montville
National Folding Box Co Inc (folding) New Haven
New Haven Board and Carton Co The New Haven
Mills Inc H J Bristol
Robertson Paper Box Co (folding) Montville

Paper Boxes—Folding and Setup
Bridgeport Paper Box Company Bridgeport
M Backes' Sons Inc Wallingford

Paper Clips
H C Cook Co The (steel) 32 Beaver St Ansonia (Advt.)

Paper Mill Machinery
Farrel-Birmingham Company Inc — Ansonia

Paper Tubes and Cores
Sonoco Products Co (Climax-Lowell) Div — Mystic

Parallel Tubes
Sonoco Products Co (Climax-Lowell) Div — Mystic

Parkerizing
Clairglow Mfg Company — Portland

Parking Meters
Rhodes Inc M H — Hartford

Passenger Car Sander
Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc — Meriden

Pattern-Makers
Farrel-Birmingham Company Inc — Ansonia

Penlights
Bridgeport Metal Goods Mfg Co — Bridgeport

Pet Furnishings
Andrew B Hendrix Co The — New Haven

Pharmaceutical Specialties
Ernst Bischoff Company Inc — Ivoryton

Phosphor Bronze
American Brass Company The — Waterbury
Miller Company The (sheets, strips, rolls) — Meriden
Seymour Mfg Co The — Seymour
Waterbury Rolling Mills Inc (sheets, strips, rolls) — Waterbury
Western Brass Mills Division of Olin Industries Inc (sheet, strip) — New Haven

Phosphor Bronze Ingots
Whipple and Choate Company The — Bridgeport

Photographic Equipment
Kalart Company Inc — Plainville

Piano Repairs
Pratt Read & Co Inc (keys and action) — Ivoryton

Piano Supplies
Pratt Read & Co (keys and actions, backs, plates) — Ivoryton

Pins
CEM Company ("Spirol") — Danielson

Pin Up Lamps
Verplex Company The — Essex

Pipe
American Brass Co The (brass and copper) — Waterbury
Bridgeport Brass Co (brass and copper) — Bridgeport
Chas Brass & Copper Co (red brass and copper) — Waterbury
Crane Company (fabricated) — Bridgeport
Howard Co (cement well and chimney) — New Haven

Pipe Fitter's Hand Tools & Machines
Capewell Mfg Co The — Hartford

Pipe Fittings
Corley Co Inc — Plainville
Malleable Iron Fittings Co — Branford

Pipe Plugs
Holo-Krome Screw Corporation The (countersunk) — West Hartford

Pipe Plugs—Socketed
Holo-Krome Screw Corp The — West Hartford

Plastics
Naugatuck Chemical Division United States Rubber Co — Naugatuck
Sponge Rubber Products Co Inc (expanded cellular) — Shelton

Plastic Bottles
Plax Corporation, subsidiary of Emhart Manufacturing Co — West Hartford

Plastic Buttons
Frank Parizek Manufacturing Co The — West Willington
Patent Button Co The — Waterbury

Plastic Gems
Colt's Manufacturing Company — Hartford

Plastic Films and Sheet
Plax Corporation, subsidiary of Emhart Manufacturing Co — West Hartford

Plastic Rod and Tubing
Plax Corporation, subsidiary of Emhart Manufacturing Co — West Hartford

Plastic Materials
American Cyanamid Co (Molding Compounds, Adhesives, Laminating Resins) — Wallingford

Plastics Machinery
Black Rock Mfg Company The — Bridgeport
Farrel-Birmingham Company Inc — Ansonia

Plastic Molding
U S Plastic Molding Corporation — Wallingford

Plastic—Moulders
Colt's Manufacturing Company — Hartford
Conn Plastics — Waterbury
General Electric Company — Meriden
Waterbury Companies Inc — Waterbury
Watertown Mfg Co The — Watertown

Plastics—Moulds & Dies
Parker Stamp Works Inc The (for plastics) — Hartford

Plasticrete Bloc
Plasticrete Corp — Hamden

Plates—Switch
General Electric Company — Bridgeport

Platers
American Metal Products Company Inc — Bridgeport
Christie Plating Co — Groton
City Plating Works — Bridgeport
Patent Button Co The — Waterbury
Waterbury Plating Company — Waterbury
Chromium Process Company The (Chromium Plating only) — Derby

Platers' Equipment
Apothecaries Hall Company — Waterbury
Conn Metalcraft Inc — New Haven
Lea Manufacturing Co The — Waterbury
MacDermid Incorporated — Waterbury

Platers Metal
Plume & Atwood Mfg Co The — Thomaston

Plating
American Associates Mfg Corp — Deep River
Christie Plating Co The (including lead plating) — Groton
Conn Metal Finishing Co — Hamden

Plating Processes and Supplies
Enthone Inc — New Haven
United Chromium Incorporated — Waterbury

Plumbers' Brass Goods
Bridgeport Brass Co — Bridgeport
Keeney Mfg Co The (special bends) — Newington
Scovill Manufacturing Company — Waterbury 48

Plumbing Specialties
John M Russell Mfg Co Inc — Naugatuck

Pole Line Hardware
Malleable Iron Fittings Co — Branford

Police Equipment
The Smith-Worthington Saddlery Co — Hartford

Polishing Wheels
Williamsville Buff Div The Bullard Clark Company — Danielson

Poly Chokes
Poly Choke Company The (a shotgun choking device) — Tariffville

Postage Meters
Pitney Bowes Inc — Stamford

Potentiometers—Electronic
Bristol Company The — Waterbury

Power Presses
Fenn Manufacturing Company The — Hartford

Power Rollers
Consolidated Industries Inc — West Cheshire

Prefabricated Buildings
City Lumber of Bridgeport Inc The — Bridgeport

Premium Specialties
Waterbury Companies Inc — Waterbury

Preservatives—Wood, Rope, Fabric
Darworth Incorporated ("Cuprinol") — Simsbury

Press Papers
Case Brothers Inc — Manchester

Presses
Farrel-Birmingham Company Inc (Hydraulic — Ansonia
Henry & Wright Div of Emhart Manufacturing Company — Hartford

Presses—Molding
Standard Machinery Co The (compression and transfer molding, automatic and semi-automatic) — Mystic

Presses—Power
Waterbury Farrel Foundry & Machine Co The — Waterbury

Pressure Vessels
Norwalk Tank Co Inc The (unfired to ASME Code Par U 69-70) — South Norwalk
Whitlock Manufacturing Co The — Hartford

Printing
Case Lockwood & Brainard A Division of Connecticut Printers Inc — Hartford
Finlay Brothers — Hartford
Heminway Corporation The — Waterbury
Hunter Press — Hartford
Lehman Brothers Inc — New Haven
Taylor & Greenough Co The — Wethersfield
T B Simonds Inc — Hartford
A D Steinbach & Sons — New Haven
The Walker-Rackliff Company — New Haven

Printing Machinery
Banthin Engineering Co (automatic) — Bridgeport
Thomas W Hall Company — Stamford

Printing Rollers
Chambers-Storck Company Inc The (engraved) — Norwich

Production Control Equipment
United Cinephone Corporation — Torrington

Production Welding
Consolidated Industries — West Cheshire

Profilers
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Propellers—Aircraft
Hamilton Standard Div United Aircraft Corp (propellors and other aircraft equipment) — Windsor Locks

Protective Coatings
Harrison Company The A S (Waxes) — South Norwalk

Publishers
O'Toole & Sons Inc T — Stamford

Pumps
Yale & Towne Mfg Co The — Stamford

Pumps—Small Industrial
Eastern Industries Inc — New Haven

Pump Valves
Colt's Manufacturing Company — Hartford

Punches
Hoggson & Pettis Mfg Co The (ticket & cloth) 141 Brewery St — New Haven

Putty Softeners—Electrical
Fletcher Terry Co The — Box 415 Forestville

Pyrometers
Bristol Co The (recording and controlling) — Waterbury

Radiation—Finned Copper
Bush Manufacturing Co — West Hartford
G & O Manufacturing Company The — New Haven
Vulcan Radiator Co The (steel and copper) — Hartford

Radiators—Engine Cooling
G & O Manufacturing Co — New Haven

Rayon Staple Fiber
Hartford Rayon Corp The — Rocky Hill

Reamers
Pratt & Whitney Div Niles-Bement-Pond Co (All types) — West Hartford

Recorders
Bristol Co The (automatic controllers, temperature, pressure, flow, humidity) — Waterbury

Reduction Gears
Farrel-Birmingham Company Inc — Ansonia
Snow-Nabstedt Gear Corp The — New Haven

Refractories
Howard Company — New Haven
Mullite Refractories Company The — Shelton

Refrigeration
Bowser Technical Refrigeration Div Bowser Inc (high altitude, low temperature) — Terryville

Regulators
Norwalk Valve Company (for gas and air) — South Norwalk
Sorensen & Company Inc — Stamford

Remote Control Wiring
General Electric Company — Bridgeport

Resistance Wire
C O Jeliff Mfg Co The (nickel chromium, copper nickel, iron chromium, aluminum) — Southport
Kanthal Corporation The (Kanthal A-1, A, D, DS) — Stamford

Respirators
American Optical Company Safety Division — Putnam

Retainers
Hartford Steel Ball Co The (bicycle & automotive) — Hartford

Riveting Machines
Grant Mfg & Machine Co The — Bridgeport
H P Townsend Manufacturing Co The — Elmwood
L-R Mfg Div of The Ripley Co — Torrington
Raybestos Div of Raybestos-Manhattan Inc The (brake service equipment) — Bridgeport

(Advt.)

Rivets
Blake & Johnson Co The (brass, copper and non-ferrous) Waterville
Clark Brothers Bolt Co Milldale
Connecticut Manufacturing Company The Waterbury
Plume & Atwood Mfg Co The Waterbury
Raybestos Div of Raybestos-Manhattan Inc The (brass and aluminum tubular and solid copper) Bridgeport
Raybestos Div of Raybestos-Manhattan Inc The (iron) Bridgeport

Rods
American Brass Company The (copper, brass, bronze) Waterbury
Bristol Brass Corp The (brass and bronze) Bristol
Scovill Manufacturing Company (brass and bronze) Waterbury 91

Rollers—Bituminous Paving
Gabb Special Products Div E Horton & Son Company Windsor Locks

Roller Skates
Winchester Repeating Arms Company Division Olin Industries Inc New Haven

Rolling Mills and Equipment
Farrel-Birmingham Company Inc Ansonia
Waterbury Farrel Foundry & Machine Co The Waterbury

Rolls
Farrel-Birmingham Company Inc (Chilled and Alloy Iron, Steel) Ansonia

Rope Wire
American Steel & Wire Div of U S Steel New Haven

Rubber Chemicals
Naugatuck Chemical Division United States Rubber Co Naugatuck
Stamford Rubber Supply Co The ("Factice" Vulcanized Vegetable Oils) Stamford

Rubber Cellular
Sponge Rubber Products Co Inc Shelton

Rubber Cutting Machinery
Black Rock Mfg Company The Bridgeport

Rubberized Fabrics
Duro-Gloss Rubber Co The New Haven

Rubber Footwear
Goodyear Rubber Co The Middletown

Rubber Gloves
Seamless Rubber Company The New Haven

Rubber—Handmade Specialties
Seamless Rubber Company The New Haven

Rubber Latex Compounds and Dispersions
Naugatuck Chemical Division United States Rubber Co (coating, impregnating and adhesive compounds) Naugatuck

Rubber Mill Machinery
Farrel-Birmingham Company Inc Ansonia

Rubber—Molded Specialties
Canfield Co The H O Bridgeport
Seamless Rubber Company The New Haven

Rubber Products—Mechanical
Auburn Manufacturing Company The (washers, gaskets, molded parts) Middletown
Canfield Co The H O Bridgeport
Seamless Rubber Company The New Haven

Rubber—Reclaimed
Naugatuck Chemical Division United States Rubber Co Naugatuck

Rubber Vibration Pads
MB Manufacturing Company Inc The (and shocks absorbing—Isomode) New Haven

Rubbish Burners
John P Smith Co The 423-33 Chapel St New Haven

Saddlery
The Smith-Worthington Saddlery Co Hartford

Safety Clothing
American Optical Company Safety Division Putnam

Safety Fuses
Ensign-Bickford Co The (mining & detonating) Simsbury

Safety Gloves and Mittens
American Optical Company Safety Division Putnam

Safety Goggles
American Optical Company Safety Division Putnam

Saw Blades—Hack
Capewell Mfg Co The Hartford

Saws—Metal & Wood Cutting Band
Capewell Mfg Co The Hartford

Saws, Band, Metal Cutting
Atlantic Saw Mfg Co New Haven

Scales—Industrial Dial
Kron Company The Bridgeport

Scissors
Acme Shear Company The Bridgeport

Screens
Hartford Wire Works Co The (Windows, Doors and Porches) Hartford

Screw Caps
Weimann Bros Mfg Co The (small for bottles) Derby

Screw Machine Accessories
Barnaby Manufacturing and Tool Co Bridgeport

Screw Machines
H P Townsend Mfg Company The Elmwood

Screw Machine Products
Apex Tool Co Inc The Bridgeport
Blake & Johnson Co The Waterville
Horberg Grinding Industries Inc (Heat treated and ground type only)
19 Staples Street Bridgeport
Connecticut Manufacturing Company The Waterbury
Consolidated Industries West Cheshire
Eastern Machine Screw Corp The
Truman & Barclay Sts New Haven
Fairchild Screw Products Inc Winsted
Franklin Screw Machine Co The (up to 1½" capacity) Hartford
Greist Mfg Co The (Up to 1½" capacity) New Haven
Humason Mfg Co The Forestville
Lowe Mfg Co The Wethersfield
National Automatic Products Company The Berlin
Nelson's Screw Machine Products Plantsville
New Britain Machine Company The New Britain
Olson Brothers Company (up to ¾" capacity) Plainville
Olson & Sons R P Southington
Peck Spring Co The Plainville
Plume & Atwood Mfg Co The Waterbury
Scovill Manufacturing Company Waterbury 91
Waterbury Machine Tools & Products Co (Brown & Sharpe and Davenport) Waterbury

Screw Machine Tools
American Cam Company Inc (Circular Form Tools Hartford
Pratt & Whitney Div Niles-Bement-Pond Co (Reamers, Taps, Dies, Blades and Knurls) West Hartford
Somma Tool Co (precision circular form tools) Waterbury

Screws
American Screw Company Willimantic
Atlantic Screw Works (wood) Hartford
Blake & Johnson Co The (machine and wood) Waterville
Bristol Company The (socket set and socket cap screws) Waterbury
Clark Brothers Bolt Co Milldale
Connecticut Mfg Co The (machine) Waterbury
Eagle Lock Co The Terryville
Holo-Krome Screw Corporation The (socket set and socket cap) West Hartford
Scovill Manufacturing Company Waterbury 91
Superior Manufacturing Co The Winsted

Screw—Sockets
Allen Manufacturing Company The Hartford
Bristol Co The Waterbury
Holo-Krome Screw Corp The West Hartford

Sealing Tape Machines
Better Packages Inc Shelton

Sewing Machines
Greist Mfg Co The (Sewing Machine attachments) 503 Blake St New Haven
Merrow Machine Co The (Industrial) Hartford
Singer Manufacturing Company The (industrial) Bridgeport

Shaving Soaps
J B Williams Co The Glastonbury

Shears
Acme Shear Co The (household) Bridgeport

Shells
Wolcott Tool and Manufacturing Company Inc Waterbury

Sheet Metal Products
American Associates Mfg Corp Deep River
American Brass Co The (brass and copper) Waterbury
Merriam Mfg Co (security boxes, fitted tool boxes, tackle boxes, displays) Durham
Plume & Atwood Mfg Co The Waterbury
United Advertising Corp Manufacturing Division (Job and Production Runs) New Haven

Sheet Metal Stampings
American Brass Company The Waterbury
American Buckle Co The West Haven
DooVal Tool & Mfg Inc The Naugatuck
J H Sessions & Son Bristol
Patent Button Co The Waterbury
Plume & Atwood Mfg Co The Waterbury

Shipment Sealers
Better Packages Inc Shelton

Showcase Lighting Equipment
Wiremold Company The Hartford

Signals
H C Cook Co The (for card files)
32 Beaver St Ansonia

Signs
Berger Sign Co (neon electric-porcelain enamel-stainless steel) Hartford

Silk Screening on Metal
Merriam Mfg Co (Displays and Specialties, to order) Durham

Sizing and Finishing Compounds
American Cyanamid Company Waterbury

Slide Fasteners
G E Prentice Mfg Co The Kensington
North & Judd Manufacturing Co New Britain
Patent Button Co The Waterbury

Slings
American Steel & Wire Div of U. S. Steel New Haven

Smoke Stacks
Bigelow Company The (steel) New Haven
Norwalk Tank Co The South Norwalk

Soap
J B Williams Co The (industrial soaps, toilet soaps, shaving soaps) Glastonbury

Special Machinery
Black Rock Mfg Company The Bridgeport
Farrel-Birmingham Company Inc Ansonia
H P Townsend Mfg Company The Elmwood
Lundeberg Engineering Company Hartford
National Sheradizing & Machine Co (mandrels & stock shells for rubber industry) Hartford
Swan Tool & Machine Co The Hartford

Special Parts
Greist Mfg Co The (small machines, especially precision stampings) New Haven
J H Sessions & Son Bristol

Special Tool & Dies
Lundeberg Engineering Company Hartford

Spinnnings
American Metal Products Company Inc Bridgeport
Gray Manufacturing Company The Hartford

Sponge Rubber
Sponge Rubber Products Co The Shelton

Spray Painting Equipment and Supplies
Lea Manufacturing Co The Waterbury

Spring Coiling Machines
Torrington Manufacturing Co The Torrington

Spring Units
Owen Silent Spring Division American Chain & Cable Company Inc Bridgeport

Spring Washers
Wallace Barnes Co The Div Associated Spring Corp Bristol
(Advt.)

Springs—Coil & Flat
Bristol Spring Manufacturing Co Plainville
Foursome Manufacturing Co Bristol
Humason Mfg Co The Forestville
Newcomb Spring Corp The Bridgeport Division Bridgeport
New England Spring Manufacturing Company Unionville
Peck Spring Co The Plainville
Wallace Barnes Co The Div Associated Spring Corp Bristol

Spring—Flat
Bristol Spring Manufacturing Co Plainville
Foursome Manufacturing Co Bristol
Wallace Barnes Co The Div Associated Spring Corp Bristol
New England Spring Manufacturing Company Unionville

Springs—Furniture
Owen Silent Spring Division American Chain & Cable Company Inc Bridgeport

Springs—Wire
Bristol Spring Manufacturing Co Plainville
Colonial Spring Corporation The Hartford
Connecticut Spring Corporation The (compression, extension, torsion) Hartford
Foursome Manufacturing Co Bristol
D R Templeman Co (coil and torsion) Plainville
J W Bernston Company (coil and torsion) Plainville
Newcomb Spring Corp The Bridgeport Division Bridgeport
New England Spring Mfg Co Bridgeport
Wallace Barnes Co The Div Associated Spring Corp Bristol

Springs, Wire & Flat
Autoyre Company The Oakville

Stamped Metal Products
American Brass Company The Waterbury

Stamps
Hoggson & Pettis Mfg Co The (steel) 141 Brewery St New Haven
Parker Stamp Works Inc The (steel) Hartford

Stampings
American Associates Mfg Corp Deep River
American Metal Products Company Inc Bridgeport
Donahue Mfg Co Inc Watertown
DooVal Tool & Mfg Inc The Naugatuck
Foursome Manufacturing Co Bristol
Plume & Atwood Mfg Co The (small) Waterbury

Stampings—Small
Acme Shear Co The Bridgeport
American Metal Products Company Inc Bridgeport
Bristol Spring Manufacturing Co Plainville
Greist Manufacturing Co The New Haven
Wallace Barnes Co The Div Associated Spring Corp Bristol

Stationery Specialties
American Brass Company The Waterbury

Steel
Stanley Works The (hot and cold rolled strip) New Britain

Steel Castings
Farrel-Birmingham Company Inc Ansonia
Hartford Electric Steel Co The (carbon and alloy steel) 540 Flatbush Ave Hartford
Malleable Iron Fittings Co Branford
Nutmeg Crucible Steel Co Branford

Steel—Cold Rolled Spring
Wallace Barnes Co The Div Associated Spring Corp Bristol

Steel—Cold Rolled Stainless
Wallingford Steel Company Wallingford

Steel—Cold Rolled Strip and Sheets
American Steel & Wire Div of U S Steel New Haven
Detroit Steel Corporation New Haven
Wallingford Steel Company Wallingford

Steel Goods
Merriam Mfg Co (sheets products to order) Durham

Steel Rolling Rules
Waterbury Lock & Specialty Co The Milford

Steel Strapping
Stanley Works The New Britain

Stereotypes
New Haven Electrotype Div Electrographic Corp New Haven

Stop Clocks, Electric
H C Thompson Clock Co The Bristol

Straps, Leather
Auburn Manufacturing Company The (textile, industrial, skate, carriage) Middletown

Studio Couches
Waterbury Mattress Co Waterbury

Super Refractories
Mullite Refractories Company The Shelton

Surface Metal Raceway & Fittings
Wiremold Company The Hartford

Surgical Dressings
Acme Cotton Products Co Inc East Killingly
Seamless Rubber Company The New Haven

Surgical Rubber Goods
Seamless Rubber Company The New Haven

Switches—Electric
General Electric Company Bridgeport

Swaging Machinery
Hartford Special Machinery Co The Hartford

Switchboards
Plainville Electrical Products Company Plainville

Switchboards Wire and Cables
Rockbestos Products Corp (asbestos insulated) New Haven

Synchronous Motors
R W Cramer Company Inc The Centerbrook

Synthetic Resins
American Cyanamid Co (Textile Resins, Paper Resins) Waterbury

Tabulating Equipment—Manual
Denominator Company Inc Woodbury

Tanks
Bigelow Company The (steel) New Haven
Norwalk Tank Co The South Norwalk
Storts Welding Company (steel and alloy) Meriden

Tape
Russell Manufacturing Company The (woven cotton and woven glass tape) Middletown

Tapes—Industrial Pressure Sensitive
Seamless Rubber Company The New Haven

Tape Recorders
Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc Meriden

Tape Recorder Magazines
Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc Meriden

Tap Extractors
Walton Company The West Hartford

Taps
Pratt & Whitney Div Niles-Bement-Pond Co West Hartford

Tarred Lines
Brownell & Co Inc Moodus

Telemetering Instruments
Bristol Co The Waterbury

Telephone Answering & Recording Machines
Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc Meriden

Testers—Insulation Wire & Cable
Davis Electric Company Wallingford

Testers—Non-Destructive
Sperry Products Inc Danbury

Textile Machinery
Merrow Machine Co The 2814 Laurel St Hartford

Textile Mill Supplies
Ernst Bischoff Company Inc Ivoryton

Textile Processors
American Dyeing Corporation (rayon, acetate, nylon, dacron, other synthetics) Rockville
Aspinook Corp The (cotton) Jewett City

Thermometers
Bristol Co The (recording and automatic control) Waterbury
Manning Maxwell & Moore Inc Stratford

Thermostats
Bridgeport Thermostat Company Inc (automatic) Bridgeport

Thin Gauge Metals
Plume & Atwood Mfg Co The Thomaston
Thinsheet Metals Co The (plain or tinned in rolls) Waterbury

Thread
American Thread Co The Willimantic
Belding Heminway Corticelli Putnam
Gardner Hall Jr Co The (cotton sewing) South Willington
Max Pollack & Co Inc Groton and Willimantic
Wm Johl Manufacturing Co Mystic

Thread Gages
Pratt & Whitney Div Niles-Bement-Pond Co West Hartford

Thread Milling Machines
Pratt & Whitney Div Niles-Bement-Pond Co West Hartford

Thread Rolling Machinery
Hartford Special Machinery Co The Hartford

Threading Machines
Grant Mfg & Machine Co The (double and automatic) Bridgeport

Time Recorders
Stromberg Time Corp Thomaston

Timers, Interval
A W Haydon Co The Waterbury
H C Thompson Clock Co The Bristol
R W Cramer Company Inc The Centerbrook
Rhodes Inc M H Hartford

Timing Devices
A W Haydon Co The Waterbury
R W Cramer Company Inc The Centerbrook
Lux Clock Manufacturing Company Waterbury
Rhodes Inc M H Hartford
Seth Thomas Clocks Thomaston
United States Time Corporation The Waterbury

Timing Devices & Time Switches
A W Haydon Co The Waterbury
Lux Clock Manufacturing Company Waterbury
M H Rhodes Inc Hartford

Tinning
Thinsheet Metals Co The (non-ferrous metals in rolls) Waterbury
Wilcox Crittenden & Co Inc Middletown

Tools
Hoggson & Pettis Mfg Co The (rubber workers) 141 Brewery St New Haven

Tool Chests
Vanderman Manufacturing Co The Willimantic

Tool & Dies
Moore Special Tool Co Bridgeport
Swan Tool & Machine Co The Hartford

Tools, Dies & Fixtures
Greist Mfg Co The New Haven

Tools—Pipe Fitters' Hand
Capewell Mfg Co The Hartford

Toys
Geo S Scott Mfg Co The Wallingford
Gong Bell Co The East Hampton
N N Hill Brass Co The East Hampton
Waterbury Companies Inc Waterbury

Tramways
American Steel & Wire Div of U S Steel New Haven

Transformers
Berkshire Transformer Corp The New Milford
Dano Electric Company Winsted

Trucks—Commercial
Metropolitan Body Company (International Harvester truck chassis and "Metro" bodies) Bridgeport

Trucks—Industrial
George P Clark Co Windsor Locks

Trucks—Lift
Excelsior Hardware Co The Stamford
George P Clark Co Windsor Locks

Trucks—Skid Platforms
Excelsior Hardware Co The (lift) Stamford

Tube Bending
Donahue Mfg Co Inc Watertown

Tube Clips
H C Cook Co The (for collapsible tubes) 32 Beaver St Ansonia
Weimann Bros Mfg Co The (for collapsible tubes) Derby

Tube Fittings
Scovill Mfg Co ("Uniflare") Waterbury

Tubers
Standard Machinery Co The (tubers for both rubber and plastic industries) Mystic (Advt.)

Tubes—Collapsible Metal
Sheffield Tube Corp The — New London

Tubing
American Brass Co The (brass and copper) — Waterbury
Bridgeport Brass Company (brass and copper) — Bridgeport
G & O Manufacturing Co (finned) — New Haven
Scoville Manufacturing Company (Brass and Copper) — Waterbury 91

Tubing—Flexible Metallic
American Brass Co Metal Hose Branch — Waterbury

Tubing—Heat Exchanger
American Brass Company The — Waterbury
Scovill Manufcturing Company — Waterbury 91

Tumbling Equipment & Supplies
Tumbling Sales & Service Company — Greenwich

Tumbling Service
Tumbling Sales & Service Company, Esbec Tumbling Division — Meriden

Typewriters
Royal Typewriter Co Inc — Hartford
Underwood Corporation — Hartford

Typewriters—Portable
Royal Typewriter Company Inc — Hartford
Underwood Corporation — Hartford

Typewriter Ribbons and Supplies
Royal Typewriter Company Inc — Hartford
Underwood Corporation — Hatford and Bridgeport

Underclearer Rolls
Sonoco Products Co (Climax-Lowell Div) — Mystic

Vacuum Bottles and Containers
American Thermos Bottle Co — Norwich

Vacuum Cleaners
Electrolux Corporation — Old Greenwich
Spencer Turbine Co The — Hartford

Valves
Norwalk Valve Company (sensitive check valves) — South Norwalk

Valve Discs
Colt's Manufacturing Company — Hartford

Valves—Automobile Tire
Bridgeport Brass Company — Bridgeport

Valves—Radiator Air
Bridgeport Brass Company — Bridgeport

Valves—Relief & Control
Beaton & Caldwell Mfg Co — New Britain

Valves—Safety & Relief
Manning Maxwell & Moore Inc — Stratford

Vanity Boxes
Bridgeport Metal Goods Mfg Co — Bridgeport

Varnishes
Baer Brothers — Stamford
Staminite Corp The — New Haven

Velvets
American Velvet Co (owned and operated by A Wimpfheimer & Bro Inc) — Stonington
Leiss Velvet Mfg Co Inc The — Willimantic
Velvet Textile Corporation The (Velveteen) — West Haven

Venetian Blinds
Findell Manufacturing Company — Manchester
Jennings Company The S Barry — New Haven
New England Shade & Blind Co Inc — Durham

Venetian Blind Tape
Russell Manufacturing Company The (woven cotton and woven plastic) — Middletown

Ventilating Systems
Colonial Blower Company — Plainville

Vertical Shapers
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Vibration Isolation Mountings
MB Manufacturing Company Inc The (for truck engines, aircraft, engine mountings, special machinery) — New Haven

Vibration Testing Equipment
MB Manufacturing Company Inc The — New Haven

Vibrators—Pneumatic
New Haven Vibrator Company (industrial) — New Haven

Vises
Charles Parker Co The — Meriden
Fenn Manufacturing Company The (Quick-Action Vises) — Hartford
Vanderman Manufacturing Co The (Combination Bench Pipe) — Willimantic

Washers
American Felt Co (felt) — Glenville
Auburn Manufacturing Company The (all materials) — Middletown
Blake & Johnson The (brass, copper & non-ferrous) — Waterville

Washers (Continued)
Clark Brothers Bolt Co — Milldale
Plume & Atwood Mfg Co The (brass & copper) — Waterbury
Raybestos Div of Raybestos-Manhattan Inc (the clutch washers) — Bridgeport
J H Rosenbeck Inc — Torrington
Saling Manufacturing Company (made to order) — Unionville

Washers—Felt
Chas W House & Sons Inc (Mills & Cutting Plant) — Unionville

Washing Machines—Electric
General Electric Company — Bridgeport

Watches
E Ingraham Co The — Bristol
United States Time Corporation The — Waterbury

Water Heaters
Whitlock Manufacturing Co The (instantaneous & storage) — Hartford

Water Heaters—Electric
Bauer & Company Inc — Hartford

Water Heaters—Gas or Kerosene
Holyoke Heater Corp of Conn Inc — Hartford

Waterproof Dressings for Leather
Viscol Company The — Stamford

Waxes
Harrison Company The A S (and other protective coatings) — South Norwalk

Waxes—Floor
Fuller Brush Co The — Hartford

Wedges
Saling Manufacturing Company (hammer & axe) — Unionville

Welding
Farrel-Birmingham Company Inc — Ansonia
G E Wheeler Company (Fabrication of Steel & Non-Ferrous Metals) — New Haven
Industrial Welding Company (Equipment Manufacturers—Steel Fabricators) — Hartford
Porupine Company The — Bridgeport

Welding—Lead
Storts Welding Company (tanks and fabrication) — Meriden

Welding Rods
American Brass Company The — Waterbury
Bristol Brass Co The (brass & bronze) — Bristol

Wheels—Industrial
George P Clark Co — Windsor Locks

Wicks
Auburn Manufacturing Company The (felt, asbestos) — Middletown
Holyoke Heater Corp of Conn Inc — Hartford
Raybestos Div of Raybestos-Manhattan Inc (the oil burner wicks) — Bridgeport

Window & Door Guards
Hartford Wire Works Co The — Hartford
Smith Co The John P — New Haven

Window Shades
New England Shade & Blind Co Inc — Durham

Wiping Cloths
Federal Textile Corporation — New Haven

Wire
American Brass Company The — Waterbury
American Steel & Wire Div of U S Steel — New Haven
Atlantic Wire Co The (steel) — Branford
Bartlett Hair Spring Wire Co The (hair spring) — North Haven
Bridgeport Brass Company (brass and silicon bronze) — Bridgeport
Bristol Brass Corp The (brass & bronze) — Bristol
Driscoll Wire Co The (steel) — Shelton
Hudson Wire Co Winsted Div (insulated & enameled magnet) — Winsted
Platt Bros & Co The (zinc wire) P O Box 1030 — Waterbury
Plume & Atwood Mfg Co The (brass, bronze, nickel silver) — Thomaston
Scovill Manufacturing Company (Brass, Bronze and Nickel Silver) — Waterbury 91

Wire and Cable
General Electric Company (for residential, commercial and industrial applications) — Bridgeport

Wire Arches & Trellises
Hartford Wire Works Co The — Hartford
John P Smith Co The 4233-33 Chapel St — New Haven

Wire Baskets
Rolock Inc (Industrial—for acid, heat, degreasing) — Fairfield
Wiretex Mfg Co Inc (Industrial, for acid, heat, treating and degreasing) — Bridgeport

Wire Cable
Bevin-Wilcox Line Co The (braided) — East Hampton

Wire Cloth
Hartford Wire Works Co The — Hartford
C O Jeliff Mfg Co The (all metal, all meshes) — Southport
Pequot Wire Cloth Co Inc — Norwalk
Rolock Incorporated — Fairfield
Smith Co The John P — New Haven

Wire Drawing Dies
Waterbury Wire Die Co The — Waterbury

Wire Diping Baskets
Hartford Wire Works Co The — Hartford
John P Smith Co The 423-33 Chapel St — New Haven

Wire Formings
Autoyre Co The — Oakville
G E Prentice Mfg Co The — Kensington
Master Engineering Company — West Cheshire
North & Judd Manufacturing Co — New Britain
Turner & Seymour Manufacturing Co The — Torrington
Verplex Company The — Essex

Wire Forms
Bristol Spring Manufacturing Co — Plainville
Colonial Spring Corporation The — Hartford
Connecticut Spring Corporation The — Hartford
Foursome Manufacturing Co — Bristol
Humason Mfg Co The — Forestville
New England Spring Mfg Co — Unionville
Templeman Co D R — Plainville
Wallace Barnes Co The Div Associated Spring Corp — Bristol

Wire Goods
American Buckle Co The (overall trimmings) — West Haven
Patent Button Co The — Waterbury
Scovill Manufacturing Company (To Order) — Waterbury 91

Wire Partitions
Hartford Wire Works Co The — Hartford
John P Smith Co The 423-33 Chapel St — New Haven

Wire Products
Clairglow Mfg Company — Portland
Plume & Atwood Mfg Co The (to order) — Waterbury

Wire Reels
A H Nilson Mach Co The — Bridgeport

Wire Rings
American Buckle Co The (pan handles and tinners' trimmings) — West Haven
Templeman Co D R — Plainville

Wire Rope and Strand
American Steel & Wire Div of U S Steel — New Haven

Wire Shapes
Bridgeport Chain & Mfg Co — Bridgeport

Wire—Specialties
Andrew B Hendryx Co The — New Haven

Wires and Cable
Rockbestos Products Corporation (all asbestos, mining, shipboard and appliance applications) — New Haven

Wooden Boxes
Wallingford Planing Mill Co Inc — Yalesville

Wood Handles
Salisbury Cutlery Handle Co The (for cutlery & small tools) — Salisbury

Wood Scrapers
Fletcher-Terry Co The — Forestville

Woodwork
C H Dresser & Sons Inc (Mfg all kinds of woodwork) — Hartford
Hartford Builders Finish Co — Hartford

Woodworking
Local Industries Inc — Lakeville

Woven Felts—Wool
Chas W House & Sons Inc (Mills & Cutting Plant) — Unionville

Yarns
Hartford Spinning Incorporated (Woolen, knitting and weaving yarns) — Unionville
Aldon Spinning Mills Corporation The (fine-woolen and specialty) — Talcottville
Ensign-Bickford Co The (jute-carpet) — Simsbury

Zinc
Platt Bros & Co The (ribbon, strip and wire) P O Box 1030 — Waterbury

Zinc Castings
Newton-New Haven Co Inc — 688 Third Ave West Haven

(Advt.)

Accounting Hints

(Continued from page 51)

counting period. Factory expense variations in production costs then merely represent the differences between the hours or dollars or other basis of distribution and the standard hours or dollars, etc.

(2) *Use Rates Which Vary With Output Level:*

Instead of basing expense burden rates on any one "normal," the various expense factors are computed at several levels of capacity. The burden rates are set for each such output level and applied as the different levels become a reality. Under this approach care must be exercised as some expense accounts will vary in relation to production volume whereas others will not change in the same ratio.

It should always be remembered that standards are nothing more than predetermined estimates of actual costs, and if circumstances cause wide variation, then standards should be reviewed in the light of the following:

(a) To determine selling price, standards should be intelligently converted to actuals.

(b) Actuals can be determined by analysis of the variation accounts and appropriate allocation to goods sold and inventories.

(c) Production capacity is only one of the reasons for variance. But allowance for capacity aids in converting standards to actual.

(d) Intelligently plan in advance reductions in overhead expenses to conform with changing production requirements.

Service Section

FOR SALE—Phillips Vapor Degreaser, Model 24, with pump, 220 V. 60 cyc., 3 H.P., Serial No. 3935. Capacity 400 pounds steel per hour. Bought new December 1952. Very little used. Also ½ drum Philsolv. Inspection and offer invited. Address PW-4377.

FOR SALE—Approximately 1,450,000 #2-56 NC-2 Steel Fillister Head Machine Screws. Length—.625 plus .001 minus .015; finish—bright nickel plate; case hardened to .003 max. depth; packed in bulk. Address SE-4386.

SAVE THE DATE

SEPTEMBER 21, 1954

TO ATTEND THE AFTERNOON AND EVENING SESSIONS

OF

The MAC'S 139th Annual Meeting and Conference

AT

YALE UNIVERSITY

NEW HAVEN, CONNECTICUT

It will be a banner day for Information and Inspiration
Circle September 21 on your Calendar TODAY

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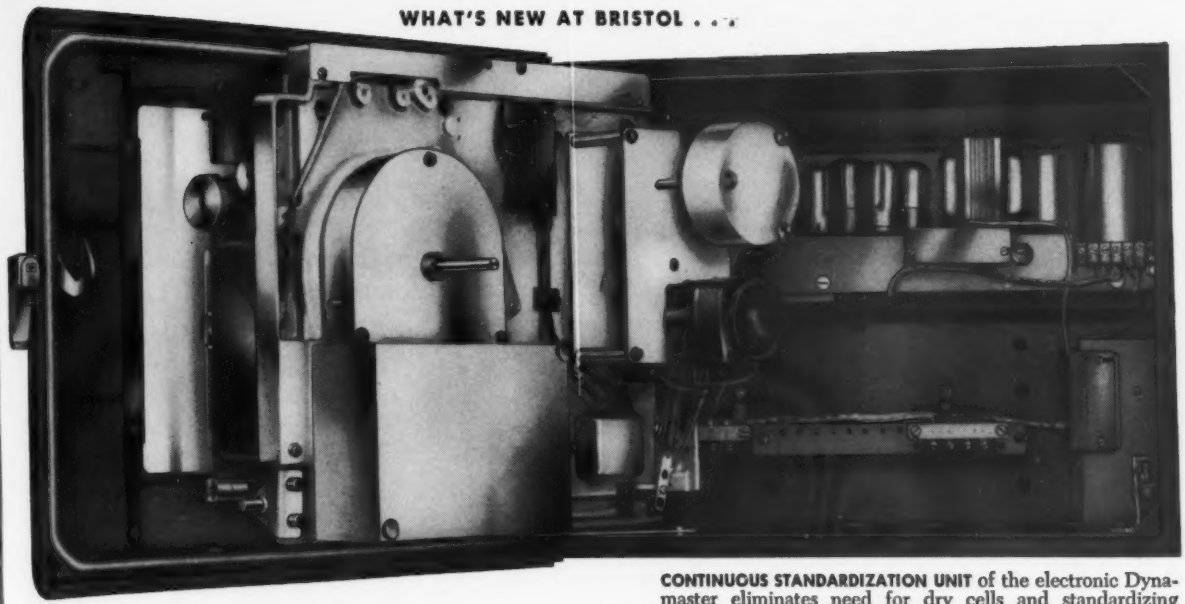
WHAT'S NEW AT BRISTOL . . .



CONTINUOUS STANDARDIZATION UNIT of the electronic Dynamaster eliminates need for dry cells and standardizing mechanism. Result: no interruptions in the operation of the potentiometer for standardization; no batteries to replace.

No time out for standardization here

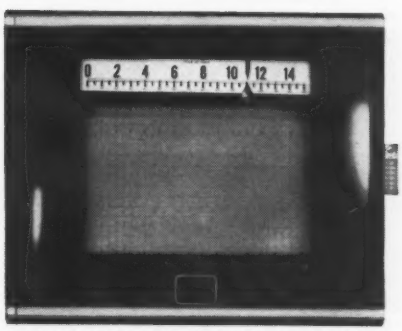
Bristol Dynamaster potentiometer pyrometers give you No-Batt continuous standardization

• You don't have to put up with interrupted performance from old-fashioned potentiometer pyrometers any longer!

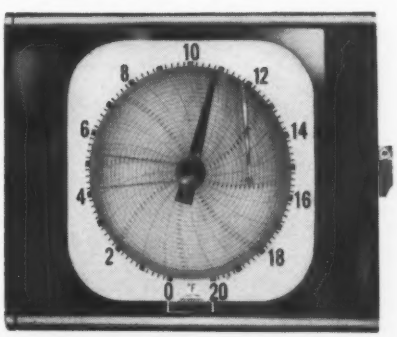
When you use a Bristol thermocouple or radiation-type Dynamaster, you get a *continuous* record or control of temperatures up to 4000°F in any type of fuel-fired or electric furnace or heating equipment. Thanks to the exclusive No-Batt continuous standardization which eliminates the need for dry cells in these electronic instruments, Bristol has been able to do away with interruptions formerly required for periodic standardization.

Bristol electronic Dynamasters are made in round- and strip-chart, single- and multiple-record recorders, air-operated and electric controllers with all types of control actions. Two-pen and program control.

For the complete story on the modern human-engineered Bristol Dynamaster, write for free 35-page booklet P1245. The Bristol Company, 163 Bristol Road, Waterbury 20, Conn.



BRISTOL DYNAMASTER CONTROLLERS in either the strip-chart model (shown above) or round-chart model, may be electrically or air operated. 2 position, 3 position, proportional, manual with automatic reset, or proportional input controls. On - off, proportional or reset air controls.



BRISTOL DYNAMASTER RECORDERS come in easy-to-read round-chart (shown here) or strip-chart models. Single record, multiple record or continuous 2 record designs are available. Bristol also supplies all types of time-temperature program controllers.

IT'S MADE IN CONNECTICUT

BRISTOL

POINTS THE WAY IN HUMAN-ENGINEERED INSTRUMENTATION

AUTOMATIC CONTROLLING, RECORDING AND TELEMETERING INSTRUMENTS

NEITHER RAIN..... NOR SNOW..... NOR ICE.....

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